UNITED STATES MILITARY ACADEMY

WEST POINT, NEW YORK

INTERSERVICE

RESOURCE

MANAGEMENT

13-15 October 1982

DTIC
ELF
NOV 2 9 1984

A

84   11   13   001

INTERSERVICE RESOURCE MANAGEMENT

Proceedings of the
26th Military Librarians' Workshop
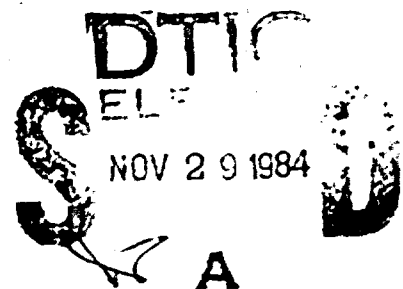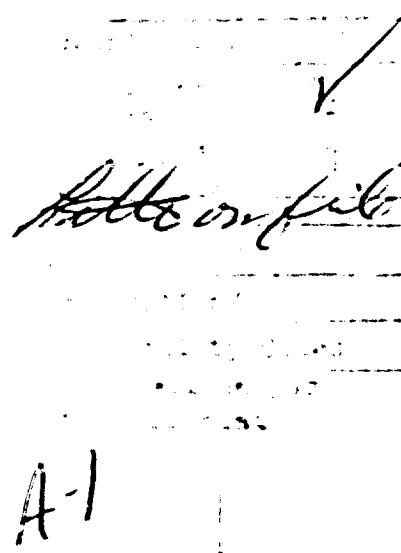held at the
United States Military Academy
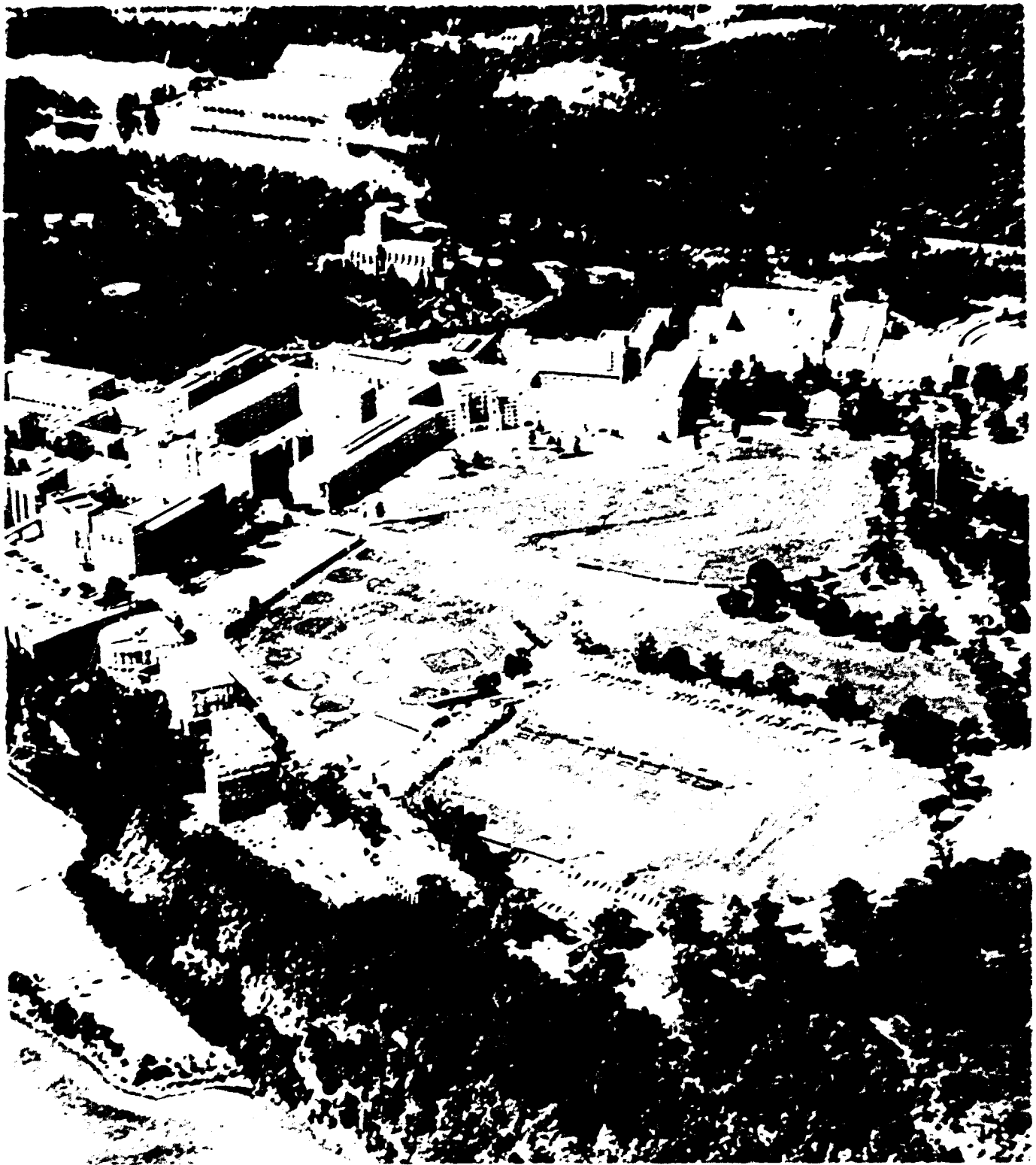West Point, New York
13 - 15 October 1982

Edited by Charles A. Ralston

United States Military Academy
West Point, New York 10996

1984

A-1

'The Plain,' United States Military Academy, West Point, New York. (The top
edge of the picture is West). From the baseball diamond of Doubleday Field,
a well-hit ball to center field is on course to the USMA Library.

~ Partial CONTENTS:

CONTENTS

Photographs

Appendices

    I.   Program Sponsor, Host, and Committees

   II.   Program of the 26th Military Librarians' Workshop

 III.   List of Previous Military Librarians' Workshops

  IV.   List of Speakers

   V.   List of Attendees

  VI.   List of USMA Library Staff Participants

FOREWORD

An analysis of this report and its comparison with proceedings from pre-
viously-held workshops fills one with pride in their accomplishments over the
past quarter century. The workshops, which were inaugurated at the Air Uni-
versity in 1957, reflect the seriousness and concerns of the participants who
then addressed topics such as cooperative acquisitions, cooperative plans for
exchange of materials, cooperative plans for exchange of information, the in-
dex of military periodicals, personnel planning and security problems.

Many subjects were covered through working papers and subsequent discus-
sion. It is interesting to note that the emphasis was on cooperation which
is still the major raison d'etre for the annual meeting of military librar-
ians. Among its Statement of Purposes was the "promotion of instruments for
creating an ever increasing recognition of the military profession and of ...
military librarianship." It becomes evident why the workshops have become a
potent catalyst for problem solving within the Department of Defense.

The state of the art in libraries has drastically changed through the use
of computer technology over the past two decades and reached the point where
information via network can now be accessed at practically a moment's notice.
Accordingly, the themes of workshops have also changed with the times. It is
to the credit of the planning by the Executive Committee and to this work-
shop's Program Chairman that the dynamism of its programs has been preserved.

Interservice resource management has become an overriding necessity in
the Department of Defense's informational "picture." We no longer can afford
to think parochially in terms of our own service when it comes to informa-
tion.

Even DoD resources have become inadequate to meet our missions, particu-
larly in the academic and research fields. It was propitious for Mr. Hubert
Sauter, the Administrator of DTIC, to provide the sounding board for the sub-
ject topic of resource sharing and for as eminent a practitioner of collec-
tion development as Dr. Paul Mosher of Stanford University to address this
topic in the context of collection management and resource sharing. The pro-
blem of the deteriorating collections was addressed by experts in the field
of conservation and preservation as was the solution to ever-shrinking space
through compact storage and microforms. Last but not least, the application
of the computer to libraries was amply covered in diverse discussions on op-
erational online systems, online catalogs, information management, micro-and
mini-computers, and video disk technologies.

iv

My personal, as well as the U.S. Military Academy's, thanks go to Mr.
Paul Klinefelter and Mr. Normand Varieur and to their committee members as
well as to all of the speakers and assembled conferees and to members of the
U.S. Military Academy staff and faculty and last but not least to Mr.
Charles Ralston, editor of these proceedings and Mrs. Elizabeth Lesnieski,
workshop coordinator, a well as all other personnel of the USMA Library who
worked hard and applied themselves diligently to enhance the quality and
success of this workshop.

EGON A. WEISS
Librarian, USMA
Workshop Host

\

PREFACE

These proceedings have been assembled from formal presentation papers, as well as from recorded remarks and notes reported by library aids and technicians. That speech accompanied by projected graphics is an excellent method of public address is true, out the same does not transpose automatically to the medium of the printed page. Therefore, I have reshaped the text of projected graphics, relying on reporter's notes to provide continuity. That the proceedings are not in the chronological order of the original program is quite obvious, the intent being to group the general sessions together followed by summaries of the workshop seminars, a photographic insert, and appendices.

I would like to publicly thank Edna Connelly of the Library's Administrative Unit, for contending with my revisions. I must acknowledge also Elizabeth Lesnieski, of that unit, for information about the Workshop that otherwise would have been lost or forgotten. Photographic credit goes to the Academy's Audiovisual Instructional Technology Division, especially to Specialist 4, Kim Bradshaw, whose sense of the impromptu bracketed the editor between a lamp post and a refuse can, an umbrella, and a Harvard bag. Finally, I gratefully record my obligation to the following reporters: Linda Durkan, Marie Goodwin, Dawn Hyzer, Kathleen Olson, Veronica Reeder, Rose Robischon, Beverly Shickle, Larry Tietze, Anna Vanacore, and Wendy Whitfield, of Technical Services Division. Without their note-taking at the sessions and seminars, these proceedings would have been much more difficult to publish.

                                        CHARLES A. RALSTON
                                        Editor

FIRST GENERAL SESSION -- Official Welcome

Mr. Egon A. Weiss, Librarian, United States Military Academy, West Point, New York

Brigadier General Frederick A. Smith, Jr., Dean of the Academic Board, United States Military Academy, West Point, New York

Lieutenant Colonel William R. Calhoun, Jr., Assistant Dean for Plans and Programs, Office of the Dean, United States Military Academy, West Point, New York

---

Mr. Egon A. Weiss, the host for the Twenty-sixth Military Librarians' Workshop, rang the hand bell, traditional summons to commence the Workshop. He introduced Brigadier General Frederick A. Smith, Jr., who tendered the official welcoming remarks which follow:

Thank you very much. On behalf of the Superintendent, Lieutenant General Willard W. Scott, Jr., it is my pleasure to welcome you to West Point and the United States Military Academy. You are a special group, a group of friends, representing a wide array of military libraries, both in this country and Canada, but also including our allies in the ranks of the civilian universities. We are very pleased that you have selected West Point for the site of the Twenty-sixth Military Librarians Workshop. We last had this honor seventeen years ago, in 1965, when the doors of our main library had been opened for only one year.

Now, since that meeting, the Academy has undergone significant changes in its physical plant and the size of the Corps of Cadets, both of which are quite obvious. Not so obvious, but even more important, are the significant changes which have taken place in the curriculum, and the concomitant increase in requirements based on the library. Over the past twenty five years our collections have tripled, severely straining the capacity of the present library building. We have recently occupied a nearby annex in the old hospital building, which houses bound, back issues of serials which may be secured on call.

We are now in the process of planning for the Library's future needs by acquiring space in buildings formerly owned by Ladycliff College which closed it doors in 1980. The Academy is purchasing that campus, which is located adjacent to the southern boundary of this hotel [Hotel Thayer]. At Ladycliff, building space has been designated to accommodate special materials and to conduct preservation and conservation activities. And, in time, we may even be forced to move some of our collections to Ladycliff. Now, some of the problems that we have been forced to deal with are quite familiar to you: budget, personnel, space, technology, and increased demands on services. We have involved our faculty to the widest possible extent in library development plans. Joint faculty and library subcommittees and task

forces have dealt with the broad problems of collection development, de-acquisition, automation, building space, security, preservation, and staff development.

I know it is with great interest that you will deal directly or indirectly with many of these problems in this workshop. Thus in the process of discussion and exchanging ideas and information we hope to learn as much from you as you may learn from us. Let me simply say that I hope your stay at West Point will be both professionally and personally rewarding. We will do everything we possibly can to help make it so. We are delighted to have you here as our guests.

Following General Smith's welcoming remarks, Lieutenant Colonel Calhoun presented an overview of the academic programs at the Academy. He outlined the curriculum in terms of the Academy's mission, emphasizing the importance of the academic program in providing an intellectual foundation on which the graduate can build. He covered core and elective courses and discussed the optional majors program. He compared the Academy's faculty, which is primarily military and which serves as a role model for cadets, with faculty at other universities and colleges. He presented statistical data illustrating the excellence of top-rated cadets at the Academy which ranks fourth in the nation in producing Rhodes and Hertz scholars. Colonel Calhoun answered questions about mandatory service, opportunities for switching services, minority recruitment of faculty, language instruction, multi-disciplinary electives, as well as the Library's relationship with academic programs.

Mr. Hubert E. Sauter, Administrator, Defense Technical Information
Center, Cameron Station, Alexandria, Virginia

Resource sharing is a necessary part of Department of Defense's policy
to pursue a coordinated, comprehensive, Scientific, and Technical Informa-
tion Program (STIP) in that it encourages and expedites the interchange and
use of scientific and technical information. This is in accordance with DoD
directive 5100.36, Defense STIP.

Among Defense Technical Information Center's (DTIC) functions is that
of providing a focus for developing and coordinating programs among, and
providing centralized technical support to, DoD technical libraries. In
order to improve their effectiveness and capabilities, DTIC assists cooper-
ative efforts among libraries to include the establishment of networks and
resource sharing.

The library community, of which we are all a part, has for some years
faced problems with limited resources and the necessity to serve greatly in-
creased needs based on growing public awareness of the importance of infor-
mation. The well-conceived, highly successful OCLC and BALLOTS (now RLIN)
initiatives, to name but two, were generated by and from the library commun-
ity. Their contributions have been phenomenal and their approach to re-
source sharing is now an accepted aspect of library functioning here and
abroad.

Resource sharing is an economic necessity if we are through cooper-
ative efforts to perform professional library functions according to com-
mon standards and to be able to meet the current surge in the need for bib-
liographic services, and to do it more efficiently. Professional manpower
is at a premium in our field. Resources available to us tend to diminish in
competition with direct investment in such important issues as national
defense and social services. We have to do more, more efficiently, and
within tight resource limitations. Cooperation, which is to say, sharing,
is necessary and is possible only with aggressive application of modern
technology.

One of DTIC's most effective user groups is the Information Hang-
Ups Group, chaired by Ms. Ruth Smith. Ms. Smith, who at the time was at the
Institute for Defense Analyses, asked me in 1976 to develop a resource-
sharing technique for the technical report, the basic medium for military
librarians. The Shared Bibliographic Input Network (SBIN) resulted. Having
gotten through its birth pangs, SBIN is now working out operational problems
and, I predict, will become the backbone of technical information science in
the Department of Defense.

STIP operates as a coordinated structure of generally decentralized activities. DTIC serves as a focus for actions required to provide and enhance DoD-wide scientific and technical informational sciences. SBIN is our means of making maximum use of existing organizations engaged in collecting, processing, and disseminating scientific and technical information. Ultimately, their activities will be coordinated to produce a coherent program that provides maximum data and resource sharing, and effective science to all who use DoD scientific and technical information.

SBIN benefits include reduced costs of DoD technical information, access to additional technical information, and provisions for system-wide knowledge of available holdings via an online catalog. Updated rules and data elements are provided by the Committee On Scientific and Technical Information (COSATI).

SBIN operates within the closed community of DoD and its contractors, because proprietary, sensitive, and security-classified information is involved. SBIN uses the Defense RDT&E On-line System (DROLS) terminals and the Remote Terminal Input System (RTIS) developed for on-line data input.

SBIN, which now consists of 30 participating sites, provides for direct input of bibliographic records from remote terminals at participating libraries and information centers. DTIC provides centralized computer capability and shares with remote sites the task of inputing information to create an online defense catalog and referral service. This network can be expanded to meet the needs of users at local sites, and can be extended to connect the major research and development information facilities. It will ensure a flexible, integrated information system, enhance program productivity, be compatible with other information systems, share communication and participation, and represent eventual major economies.

SBIN originated in 1977 as the shared bibliographic input experiment. Its development was the result of a joint effort among DTIC and six other agencies: Air Force Weapons Lab (AFWL), Army Armament Research and Development Command (ARRADCOM), Defense Communication Agency (DCA), Defense Nuclear Agency (DNA), Institute for Defense Analyses (IDA), and Naval Research Lab (NRL). By 1981 SBIN had progressed enough to warrant dropping the word "Experiment" from its name, and to make it an integral part of DTIC operations.

There are four phases for shared bibliographic input. In the first three phases sites supply bibliographic input for documents that they generate or control. In phase one these are current publications (data and copies to DTIC). In phase two, data and copies of selected retrospective documents are sent to DTIC. In phase three, the documents are not sent to DTIC, just data that includes information on the controlling office. In phase four, data is input for non-site-generated documents held in local collections (data only, including information on the controlling office).

The quality of input is controlled by edit-audit printouts of records input by the remote sites until the sites gain enough experience in creating valid data. Printouts of individual site holdings are available to each participant on request. The records are searchable online.

The Research Sharing Advisory Group (RSAG) was established by DTIC in October 1980. RSAG provides advice and makes recommendations on matters dealing with DTIC's shared cataloging program and other resource sharing activities. Membership consists of not more than nine individuals from the defense information community selected from DoD organizations and contractor facilities served by DTIC. RSAG maintains contact with the DROLS User Council to coordiate areas of interest to both advisory bodies.

SBIN participants have access to DTIC electronic mailbox capability. Sites use the mailbox to send messages to DTIC and other network participants on the short-term resolution of descriptive cataloging problems and to examine cataloging practices within the defense community and to recommend community-wide standards to DTIC within the Committee On Scientific And Technical Information (COSATI) framework. It has addressed difficulties associated with corporate source, monitor assignments, and report number formats. It also has collected information about cataloging and technical report standards used within DoD.

A long-range goal of SBIN is to have available DTIC software to process DoD and contractor bibliographic files by the site originating input to RTIS. The software would provide the site with a local automation system for its exclusive use. With such a system, the site would be able to store and retrieve its own classified technical report information in its own computer and be able to integrate such information with the report information it submits to RTIS. The benefits of developing a local automation system, a model to be used by all SBIN participants, are reduced costs for local manual cataloging procedures, less redundant data entry to the RTIS and local systems, and reduced costs through development of a compatible system for all SBIN participants.

DTIC is now developing a local automation model (LAM) which will provide sites a capability for online local storage of records for technical reports not suitable for announcement via DROLS. The LAM will be DROLS-compatible using the same basic input and retrieval protocols so that a site will have one system for cataloging and retrieving all technical reports.

Special features not presently available on DROLS will be included in the LAM to satisfy local requirements for an online catalog. Features under consideration are prompted data entry, keyword access, and the ability to search by regrade/declassification date. The LAM design will allow users to pull records off the DROLS file and reformat or enhance the records for local use.

5

As of September 1982, DROLS terminal sites include the following locations and number of terminals:

Army	104
Navy	50
Air Force	42
DoD/DoD Agencies	14
Foreign Governments	1
Information Analysis Centers	10
DTIC In-House	56
Other Government Agencies	23
DoD Contractors	241
TOTAL	541

In the future we hope to have most of the DROLS sites participating in SBIN. We are experimenting with dial-up input, which has been tested but still has some drawbacks. Of the 241 DoD contractor terminals, 231 have dial-up access.

Budget cuts may delay completion of the local automation model and the capability to accomplish real time duplicate checking on line. The current effort to extend the input capability to dial-up terminals has major drawbacks in that the procedure is awkward and time-consuming for the user with an asynchronous dial-up terminal.

In the future, as more sites participate in SBIN, the cataloging burden at any one site will be reduced, thereby increasing the value of SBIN to all. The local automation model is just one of a number of system enhancements that are being developed. A free-text title search capability will allow SBIN sites to check for duplicates in the system using keywords from the document title. DTIC will develop agreements to ensure that the understanding between DTIC and the sites is on a firm business footing and that each knows exactly what is expected of and by the other. As I said earlier, we have high hopes for SBI and every reason to believe that it will measure up.

Dr. Paul H. Mosher, Associate Director for Collection Development, Green Library, Stanford University, Palo Alto, California. The following remarks are an adaptation and expansion of an address given at the RTSD Collection Management and Development Institutes held at George Washington University and the Massachusetts Institute of Technology in July and October, 1982, respectively.

THINK NATIONALLY, ACT LOCALLY: TOWARD STEWARDSHIP OF LIBRARY RESOURCES.

I'd like to talk today about three topics: the three major components of the branch of library and information studies called "collection develop- ment." These are like a target with three concentric circles: the first, the bullseye, is collection development itself; the second, which surrounds the bullseye, is collection management. The third, or outermost ring, is the context which defines and informs the inner two, and this is resource sharing, and I will dwell today on a particular aspect of that outer ring: cooperative or coordinated collection development.

The branch of the library profession known as collection development arose from the evolution of speci.l needs in libraries to serve the greater demands of the growing number of scholars and students in the expanding aca- demic world of higher education during the '50s and '60s, and from the growing and ever-expanding world of technology which grew out of World War II. During the post-war decades, libraries discovered that their collec- tions were inadequate to meet the informational and textual needs of the "new professionalism" of academe and technocracy, that gaps had to be filled, and that there was money to do it.

This period saw the beginning of collection development as a function of librarianship as distinguishable from acquisitions, and Keyes Metcalf of Harvard has called it the "premier function of librarianship."

What, exactly, is collection development? Collection development is the effective and timely selection of library materials, forming carefully selected and constructed area or subject collections, shaped over time by bibliographic experts - it is the synapsis linking thousands of decisions into sensitive provision of needed research materials, it is the capacity to make the parts fit the needed whole.

The problems of collection development are the problems of selection and the conversion of those selection decisions into books received. It is a process which seeks to parallel the striving for adequacy or excellence of the programs and institutions served. But what does excellence mean and how do we deal with it? Howard Bowen in The Costs of Higher Education,[1] says

that we don't deal with it. Here are Bowen's "five laws of higher education costs" as they apply to most large public or governmental institutions:

"1. The dominant goals of institutions are educational excellence, prestige, and influence.

2. In quest of excellence, prestige and influence, there is virtually no limit to the amount of money an institution could spend for seemingly fruitful educational ends.

3. Each institution raises all the money it can.

4. Each institution spends all it raises.

5. The cumulative effect of the preceding four laws is toward ever-increasing expenditure."

Just as the goals and objectives of our libraries stem from the goals of our parent institutions, so we may derive the Five Laws of Library Costs:

1. The dominant goals of a library are excellence in service, bibliographic control, collections, and prestige.

2. In quest of excellence in service, bibliographic control, collections, and prestige, there is virtually no limit to the amount of money a library could spend for seemingly fruitful educational support.

3. Each library seeks all the money it can.

4. Each library spends all it gets.

5. The cumulative effect of the preceding four laws is ever increasing library expenditure.

While we would wish to spend everything we get for improved collections and services, we often can't and certainly shouldn't. We can't because of cost inflation over time. Staff, materials, and services cost more in order to provide the same levels of support. Average annual cost increases for research materials over the last five years have exceeded 10 percent for books (10.7 percent in 1978) and 15 percent for periodicals.[2] The 1982 Library Journal price index for periodicals and serials which appeared in the August issue, reported an average 14.5 percent price increase for domestic serials last year -- "a near record increase."[3] And to put these figures in perspective, at 15 percent, the cost of a journal doubles every four and one-half years.

8

Obviously, the cost per added-title increases more rapidly than funds available for purchase, causing libraries to acquire fewer titles at greater cost each year. At the same time that libraries are acquiring fewer non-serial titles, they buy more serial titles. Unlike books, serials subscriptions continue until cancelled, resulting in incremental budget increase rather than one-time expenditures. Serials are also rising in cost more rapidly than books. Thus, as larger and larger proportions of an academic library's materials budget are spent to continue serials subscriptions, smaller proportions remain to be spent on one-time purchases for books, non-serial documents, or for microforms. At a time when many libraries need more flexibility in their materials budgets in order to meet the demands of local program change, the need for new materials formats, and the requirements of changing services, the materials budgets are growing less flexible. The 1978 ARL Statistics caution that "as these trends continue, it is becoming increasingly clear that new ways must be found to use limited resources to maximum effect".[4]

Rising costs and declining revenues mean for our libraries slower growth, no growth, or even cuts in staff and materials budgets. Libraries continue to push for the most they can get, and instead of being praised for their undaunted pursuit of excellnce, they are criticized as "Alexandrian" or as "bottomless pits," and the collection development or acquisitions librarians who conduct heroic campaigns to improve or maintain service levels of their collections are labeled unrealistic, impractical, uneconomic dreamers.

Librarians become resentful and confused. They recognize that funding sources have limits (in good times there weren't many) but the expectations and demands of faculty and academic programs have not declined in proportion with the decline in funding resources. Collection development or acquisitions librarians become trapped between the rock of need and the hard place of inadequate resources. The myths of excellence - or adequacy - are only useful if they are well defined by the library in conjunction with institutional administrators and well understood by the middle management of the library.

All of this leads to management by exasperation: a situation in which administrators and library managers forget they must work together toward the identification and solution of common problems, objectives and goals. They concentrate, instead, on differences, on the problems of administrative ambivalence and ambiguity. And, when this happens, the pleasure of providing fine library service can feel a lot like pain.

Acquisitions and collection development librarians often look, in cases like this, to their library school education, but it doesn't usually help. Acquisitions, a bit of it, was there as book ordering and receipt, and collection development courses, when they exist, are usually about book selection and bibliography.

It was to deal with problems like these that the concept "collection management" evolved. And, while not all libraries may need collection development as I've defined it above, all libraries need collection management. Collection management, like resource sharing, is intended to help librarians combat shrinking buying power by increasing local options.

If it has an origin, collection management began in the Collection Management and Development Committee of the Resources Section of ALA's Resources and Technical Services Division. The time and place of the invention was during the period 1974-77 when the Committee began to develop a series of guides and guidelines for the principal functions of Collection Development, as then understood, and then mounted a preconference at the summer ALA conference in Detroit in 1977 to begin the work of education in this newest sub-discipline of librarianship. A series of RTSD regional collection management and development institutes, such as the ones held at Stanford, George Washington University, and the Massachusetts Institute of Technology, evolved from the suggestions of librarians who attended that preconference.

Along the way, it became clear that the group of functions, activities and products we were working on implied a profound change from the old concept of collection development, and we began to call it "collection management" — a title also implied in the work of British library scholars, and one which has been adopted by the journal Collection Management.

What is this thing called collection management? Is it a clever masking of collection development — simply the same of wolf in lamb's clothing? A new buzzword? We should need another?

Simply put, collection management is the systematic, efficient, and economic management and stewardship of library resources.

It is systematic because it is analytic and programmatic. It deals with functional programs which follow from institutional and library goals and objectives. Collection management librarians are sociologists of library materials. They study, for example, what faculty and students in engineering say they need and use, and then they study circulation and in-house use behavior to ascertain what they do use, and how. And then they prepare and maintain a collection development policy statement to document findings and use them to shape the appropriate parts of the collection.

Collection management is efficient because it seeks to separate out the large from the small, the important from the trivial, the real from the legendary or mythological. It is thoughtful of the relationship of means to ends, of the useful proportion of collection size of the complexity to need. It is efficient because it tells us that small can be better than large if more proportional to need. A typical application of the efficiency principle is that of making materials selection a macro process. This means

that a collection manager concentrates first on those selection decisions which will bring in the larger number of titles (monographic series, university press standing orders, microfilm sets, for example), and then individual title selection.

It is economic because the collection manager is accountable for his actions -- to the library, to the users and to the parent institution. The collection manager recognizes his responsibility to husband resources so that they will go farther -- in good times as well as bad. An example of this is the development of the library core collection -- indentification of those materials, media, formats, serial titles, publishers, which constitute the basic, curriculum-related, most-used materials in each library; that set of materials which is duplicated and should be. (And identification of appropriate areas of duplication, locally or within a consortium, is an important element of collection management -- it is not just a cutting or reducing process). Then, maintenance of the core becomes priority one, and everything else can be examined to ascertain unnecessary redundancy locally or regionally. The real special or research collections can then be identified and developed appropriately in terms of resources available. It is also economic in that the collection management librarian seeks first to optimize rather than maximize resources, how to get the most out of what there is rather than following the exasperating policy of always needing more, most, mostest.

The three goals of collection management as it has been described above are:

1. To increase options available to the library and its managers

2. To optimize rather than maximize resources

3. To emphasize stewardship rather than expenditure of resources.

The functions of collection management are illustrated by the series of guides and guidelines produced and in process of completion by the Collection Management and Development Committee of the RTSD Resources Section of the American Library Association, and these functions also provide the structure for the recent Resources Section award-winning Collection Development In Libraries; a Treatise,[5] which also contains explanatory articles on most of the topics under consideration here.

What are the functions of collection management?. Let me outline them briefly here:

1. Development of the collection development plan, and of the collection management policies statement. This should include not just what the present strength of the collection is, and the levels of intended collecting intensity, but also what the library plans to do with it after it is acquired, e.g., serials management.

2. Development of a materials budget and the allocation of it in a way that will optimize its effect on the needs and demands of users.

3. To analyze and evaluate collections with regard to their utility to users. What have you got? Are they the right things? Why or why not? What do you have that you don't need? What don't you have that you should have?

4. Review of the collections for management planning and decisions: What needs preservation? What needs it most? What needs it sooner and what later? What material is non-core and would have less effect on users if relegated to less costly and active storage?
   . What material is obsolete, undesirably redundant, or otherwise not needed, and could therefore be discarded?

5. The conduct of use and users studies: surveillance of users, sound study of the behavior of library materials and their readers.

6. Study of the effectiveness, economy, and efficiency of your collection development and selection program. Does it do what it's supposed to do? Do bibliographers or selectors have adequate training, time, and support to do their work productively?

7. How effective are acquisitions programs at getting materials needed? Do vendors and dealers function effectively in terms of time, cost, and responsiveness?

8. Determination of what cooperative or coordinated collection development or management activities, with other local or regional libraries, would allow useful or profitable reallocation of local resources?

These eight functions define what collection management is, and remember that each is only a part of the sum, and the sum of all is collection management.

The eighth of the components of collection management -- cooperative or coordinated collection development in a resource sharing environment -- is the third, the surrounding and contextual of the three rings of our target. Coopeative or coordinated collection development is intended to increase the options available to the library, and thus to enhance all of the goals of collection management.

Resource sharing has received a lot of hopeful and favorable publicity, but not everyone likes the idea. Daniel Gore recently wrote of his aversion for the term:

"I dislike the term 'to share,' which administrators like to use
when they want to pass on some bad news to you, or raise a delicate
problem. 'Dan, I'd like to share a little budget information with
you: we're going to have to cut the library about 30 percent next
year.', or 'Dan, I'd like to share with you a little problem the
president's wife is having with the library. Every time she passes
your office door, she hears raucous laughter and smells fine sherry
riding on its waves, and I just thought, well, I ought to share that
little concern with you.' Hermann Goering used to say that when
anyone mentioned the word culture around him, he reached for his
revolver. I reach for the doorknob when somebody starts to speak
of sharing things with me."[6]

Nevertheless, he comes to the conclusion, as do most of my colleagues
and I, that resource sharing is both necessary and desirable, and that
coordinated, cooperative collection development is its foundation.

Why Cooperate?

Despite all the fashionable talk about distributed or cooperative col-
lection development these days, there is an enormous amount of skepticism on
the part of acquisitions or collection development librarians, and former
ALA President Russell Shank, University Librarian at UCLA, summarizes their
views with the reasonable proposition that "In the last analysis, the
scholars will go where the books are." If that is, in fact, true, why
should librarians involved in collection development not be the leaders of
fifth-column resistance against those who want us only to develop our core
collections and depend on collections held elsewhere, even going so far as
sending unneeded books to other centers where they make more sense.

The real reason fo cooperative or distributed collection development
is a pragmatic one based on the desire of librarians to provide the best and
most ample resources they can for their users. The best a priori case I
know of for cooperative collection development is revealed by a study of
collection overlap in academic and research libraries.

The 1975 study of overlap among University of California System lib-
raries revealed that 69 percent of Berkeley's holdings are unique among the
northern libraries and 50 percent of UCLA's titles are unique in the south.
Fifty-three percent of the collections at Berkeley and UCLA are duplicated
at the other library. Eighty-seven percent of titles held by SUNY libraries
and Cornell were cataloged by one library only, and in the State of Wiscon-
sin, 81 percent of all titles held by the University System libraries were
held by just one library.

Similar findings come from Great Britain where the University of Lan-
castershire Library Research Unit found that about 50 percent of titles held
by British research libraries were unique, and in a multi-type library sys-
tem, the one study made to date, which is of titles acquired by libraries in

13

the State of Louisiana over an eighteen-month period, shows that 83 percent of those titles were acquired by one library only. Five universities in the District of Columbia area in 1968 studied overlap of their collections and found that 40 percent of the titles they held in common were possessed by only one library. Even in a study of secondary school libraries in New Jersey, 50 percent of the titles held by those libraries were found to be uniquely held by one library. William Gray Potter, in summarizing these and other findings, found that unique titles in a consortium or region varied between 50 and 86 percent.[7]

There is other recent data of significance. Among 82 theological and religious libraries in the American Theological Library Association, 22 percent of the titles held by all libraries are held by one library only. The largest percentage of these titles held by any single library, however, is 60 percent, held by the Union Theological Seminary.[8]

These findings are underscored by the first two of a set of verification and overlap studies currently under way by libraries of the Research Libraries Group and the Association of Research Libraries in the process of mapping the research library resources of the nation and developing coordinated collection development policies. These studies are used to verify the reporting of individual libraries to the cooperative collection development policy or "conspectus," and in conducting overlap studies to determine the distribution of resources among member libraries. This series of studies differs from most overlap studies previously undertaken in that groups of major national research libraries scattered across the country form the core of these efforts, rather than small groups of libraries in a regional or state consortium. The result of these studies is very important because it may be hypothesized that when the great research libraries of the country are compared, their findings will be found to be much more largely redundant than is the case with the smaller regional or local consortium. Does the individual "comprehensiveness" of the library's collection mean that cooperative efforts among research libraries offer little benefit from cooperation?

To date, two studies have been completed, both by the Research Libraries Group. These are in the areas of English language and literature, and art history. At the time of this writing, the results have only been partially analyzed, but even this restricted analysis shows intriguing results. English literature is an area of very considerable concentration by all RLG libraries. Therefore, it might be presumed that there would be a fairly high rate of overlap of collections. The findings of the study show this hypothesis to be correct. Of the first four libraries reporting (Berkeley, Yale, Columbia, and Stanford), only 6.6 percent of the titles were found to be held by only one library. The core commonly held by two or more is nearly 60 percent. However, for researchers, the 6.6 percent of the titles that are uniquely held by one library is a significant number.

The area of renaissance and baroque art history is obviously a much more specialized subject. What did the overlap study reveal in this in-

stance? In the first report, among seven reporting libraries, including the Metropolitan Museum of Art, 10.4 percent of the titles were uniquely held, but only 14 percent form a core held by two or more libraries. This 14 percent may be called the core collection, with the remaining 86 percent of the titles looked upon as the area of sharable resources. Thus, the findings confirm the fact that art history is much less a core area of collection for these research libraries than English literature, a suggestion which also follows from common sense. The results of the studies indicate that the overlapping holdings of major national research libraries are indeed greater than the holdings of local, regional, or multitype consortia. However, the findings also present overwhelming evidence of the value of resource sharing, and the increase in the number of unique titles that will be available to scholars from combined research resource collection of specialized and major research libraries if of obvious significance. The results of continued study are likely to underscore and prove further the benefits of resource sharing to study and scholarship and the increase of options available to collection developers in cooperating libraries.

What Is Cooperative or Coordinated Collection Development?

Cooperative or coordinated collection development is cooperation, coordination, or sharing in the development and management of library materials by two or more libraries forming a consortium or partnership. It is based on the premise that a lot of books do not necessarily make a good collection, and that two or more collections are probably better than one. Cooperative collection development also recognizes the principle that each library requires a core collection of materials available locally to support its fundamental and primary mission and goals, but in addition requires a flexible and chronologically changing backup of material for study, research, or purposes of specialization which may not be used as frequently as the core collection, and may therefore be shared with other libraries, thus enhancing the missions of all without damaging the accessibility to materials by local users. It presumes the concept that the lesser-used titles of each library of a network consortium may be considered to form part of a resource collection for all partner libraries.

In a multi-type library network, and with a core of libraries with research components, rationalization and cooperation in the development of non-core area library resources can greatly extend the capacity to develop useful collections locally and collectively to the benefit of users of library service, and taxpayers or other funding agencies which support these libraries.

Libraries develop cooperative collection development programs for reasons both selfish and altruistic. I have outlined the financial reasons above, which demonstrate the necessity of libraries developing new concepts and structures to protect their missions and their users from the in roads of repeated cost increases.

Librarians need cooperation, as well, by reason of stewardship, which

implies professional commitment to providing the highest quality of really useful service at the lowest cost, that is, the optimization of resources. The only reason to use librarians, rather than clerks or taxi drivers, to run libraries is that they have the knowledge, training, motivation, and energy to plan and run libraries more effectively and efficiently to get more use per dollar spent -- which is the real meaning of the buzzword "cost-effective."

What Are the Components of A Cooperative Collection Development Program?

First, the needs of institutional programs for library collection support need to be studied and documented, and then the collection needs to be studied to ascertain the strengths and weaknesses of existing collections to meet those needs. Consideration should be given to needed duplication of core materials and to capacity to depend on distribution rather than local availability of research and development materials subject to lower use.

A program should be planned and written covering present and future collection development efforts needed for local programs and suggesting possible local contributions to a shared or distributed pattern of providing for research collection needs, and local interest in having certain strengths collected and made available at other libraries. The end result of this is both more focused provision for local needs, and the development of the distributed research resource collection among partners based on knowledge of local programs, need, and long-term commitment and capacity.

No successful cooperative or coordinated collection development program can exist without adequate and consistent bibliographic access and delivery systems.

The documented conspectus and local collection development policies can then be analyzed and used as the basis for other system-wide planning and cooperative efforts such as planning and distributing primary or partnership collecting responsibilities for certain areas of the collections, or for media or special format collection description, and can be used to assist in forming and coordinating collection management efforts such as preservation, removal to off-site storage, pruning, and these documents and tools can also be used as guides for interlibrary loan activity and possibly coordination of some cataloging or preservation activity, as well, if desired. The conspectus and policies can also be used to minimize unwanted redundancy in purchase of materials, as well as to identify needed core collections to support basic curriculum, reference, study or research needs for which local controlled duplication may be necessary.

The system of coordinated collection development should be constructed in such a way that the capacity of each library to develop its own core collection will be enhanced by clarification of research collection specialization and intensity so that the research and development resources of the consortium may be clearly outlined. In this way, for example, technical research and development materials could be primarily collected by research

16

and development libraries, and historical materials by academy libraries. An acceptable, comparable, and coordinated collection development policy statement is needed to bring about understanding and rationalization of existing and future collecting strengths and weaknesses, as well as of major local program strengths. Attention should also be given to linkages between military libraries and nonmilitary research or special libraries in appropriate regions.

The potential benefits of programs of cooperative or coordinated collections development are considerable, and so are the potential problems or failures possible for poorly planned systems I need not go into these in detail here, since they are clearly enumerated in A Guide to Coordinated and Cooperative Collection Development, a product of the ALA Collection Management and Development Committee and available through the Resources and Technical Services Division of the American Library Association. The ALA guide also includes a set of preconditions for planning cooperative collection development programs which are helpful. These include commitment of institutional and library staff to achieving workable and feasible coordinated collection development and management goals, emphasis in discussion and planning on the long term (ten or twenty years in the future) rather than immediate present, the understanding that there will be fiscal fluctuations over any period of time that will make cooperation in collection development more urgent during some periods than others, but that programs of this nature cannot be created and disassembled as the need arises over time. They must be established and used during good times, as well as bad. Programs must be responsive and minimally threatening to local priorities and programs, and initial emphasis should be on those members' programs which are maximally supportive and useful and minimally threatening to member institutions. Letters of reciprocity and the contribution of each participant must be carefully considered and agreed upon by all participants, and policies and protocols should define acceptable collection standards and standard collecting levels. There must be a commitment to adequate funding and staffing of collection development and resource delivery operations to support the resource sharing effort.

Coordinated and cooperative collection development requires the allegiance of the people who must make it work; thus, programs must provide for education and further development of human beings as well as machinery or systems.

During the process of the operation of such systems, as well as their planning and construction, institutional representatives must meet periodically to review the structure and operation of policies and arrangements, and to revise them to achieve greater effectiveness. Construction of a standing steering committee representative of participating institutions is often a sound way of dealing with this issue.

Good collections are well-defined collections. Thus coordinated collection development and management requires coordinatable or mutually comprehensible collection development policy information which can readily be

17

understood by faculty, students, institutional administrators, legislators, board members, or others, as well as by librarians or computer programmers. The Research Libraries Group Conspectus, which is being adopted by the Association of Research Libraries to map existing research collection strengths and future collecting efforts by its own member libraries, is the most feasible structure for a coordinated collection development policy.[10]

In summary, if you carry out the functions of collection management and development well, including cooperative collection development, you will optimize your jobs and you will optimize your libraries' resources, both human a monetary. You will contribute in a very real way toward the excellence of your library and the institution or organization it serves. You will indeed be the steward of your resources and your collections, and not just a bigger builder and a bigger spender.

Each of you who has had collection development or acquisitions responsibilities in a library of any size has done some of these things already -- a project or two, a collection analysis, a use study. What collection management requires is that you do it more, and do it more systematically. It is the way of the future, the way of necessity, the way of good practice in librarianship, and the way of common sense.

NOTES

[1] Howard R Bowen, The Cost of Higher Education (San Francisco, 1980), 19-20.

[2] Herbert White, "Library Management in the Tight Budget Seventies: problems, challenges and opportunities," Bulletin of the Medical Library

[3] Norman B. Brown and Jane Phillips, "Price Indexes for 1982; U.S. Periodicals and Serials Services," Library Journal (August, 1982), 1379.

[4] ARL Statistics, 1977-78, compiled by Suzanne Frankie. Association of Research Libraries, Washington, D.C. (1978), 3.

[5] Collection Development in Libraries; A treatise, ed. Robert D. Stueart and George B. Miller, Jr. (Foundations in Library and Information Science, Vol. 10, Parts A and B), 2 vols (Greenwich, 1980).

[6] Daniel Gore, "Nothing Succeeds Like Excess: An Essay on Interlibrary Loan," Library Journal, 107 (August, 1982,) 1375-78.

[7] Most of this data comes from William Gray Potter, "Studies of Collection Overlap: a Literature Review," Library Research, 4 (1982), 3-32. There is additional data in Mae Holt, "Collection Evaluation: A Management Tool," Collection Management, 3 (1979), 279-84. The Wisconsin study results are published in Barbara Moore, et al., "Title Overlap: A Study of Duplication in the University of Wisconsin System Libraries," College and Research Libraries, 43 (1982), 14-21.

[8]Andrew D. Scrimgeour, et al., "Collection Analysis Project. Final Report of the Ad Hoc Committee for the Preservation of Theological Materials, American Theological Library Association." June 1981.

[9]American Library Association, Resources and Technical Services Division, Resources Section, Collection Management and Development Committee, A Guide to Coordinated and Cooperative Collection Development (Chicago, February 1983), _.ion 3.1, p. 18-25. This guide is available from the Resources and Technical Services Division of ALA. It is planned to publish the guide in an issue of Library Resources and Technical Services sometime during the next two years.

[10]An article outlining the nature and use of the RLG Conspectus may be found in the March 1983 issue of College and Research Libraries.

THIRD GENERAL SESSION — Office of Personnel Management Classification Standards for Librarians

---

Ms. Ellen Cook, Chief, Information Systems Staff, Division of Information and Library Service, Department of Interior, Washington, DC, was unable to attend the Workshop. Ms. Cook chairs the ALA ad hoc steering committee which prepared ALA's formal response to OPM's proposed standards for librarians. In her stead, a panel of three librarians discussed the proposed standards. Panelists were Ms. Dorothy A. Fisk, Director, Army Library Management Office; Ms. Nathalie G. McMahon, Deputy Director, Air Force Librarlar; an' Ms. Ingjerd O. Omdahl, Staff Librarian, Army Materiel and Readiness Command. The session was free-wheeling and many in attendance asked a variety of questions about the effects of the proposed standards on salaries, qualifications for entry into the federal ser ice, and the impact on librarianship as a profession.

Mr. D. Lee Power, representing Mr. James Riley, Executive Secretary of the Federal Library Committee (FLC), reported on the increase in FEDLINK services, an arrangement between the FLC and the New York Times regarding the latter's data services, and a new experimental program involving the use of microcomputers for circulation control in small libraries.

Mr. Hubert Sauter, representing the Defense Technical Information Center (DTIC), reported on Department of Defense Directive 5100.26, regarding technical information and automation, and the coordination of each service with representatives from private industry. DTIC has begun projects with the National Aeronautics and Space Administration and the Departments of Commerce and Energy with regard to development of the Intelligence Gateway Computer System, which will link separate databases. An interesting development is a law suit involving the Technical Abstract Bulletin and the Department of Justice with regard to the issue of security classification versus private publication of sensitive abstracts. Also, DTIC's budget restraints permit support of ongoing programs, but do not encourage new developments. The Office of Management and Budget's Circular A-76 regarding government commercial activity cost comparison with the private sector is in good posture considering exemptions granted. The same is true with the 1980 Paperwork Reduction Act as currently reviewed by the Defense Audit Service.

Ms. Dorothy Fisk, representing the Department of the Army, reported on the Library Technician Training Package under development at Fort Belvoir, Virginia. Completion date is scheduled for July 1983 at which time the Package will be available to interested libraries via inter-loan. Ms. Fisk discussed the Army Library Materials Acquisition Survey which will provide data for the Army Assistant Secretary of Research, Development, and Acquisitions. The Survey will be available to other DoD librarians. The Army Library Management Office is the DoD voting representative on the American National Standards Institute's Committee for Library and Information Services and Related Publishing Practices (ANSI Z39). Input is requested from other DoD agencies for consolidation into a DoD position. Ms. Fisk also reported on the implementation of the Integrated Library System (ILS) developed by the National Library of Medicine, which utilized the Army Library Pentagon as the ILS test bed. Currently under negotiation is an interagency agreement to permit Army libraries access to ILS software for further development of library automation. Army libraries at the Armament Research and Development Command, at Forts Belvoir, Leavensworth, and McNair, and at Walter Reed Army Medical Center are considering the ILS.

Mr. Stanley Kalkus, representing the Department of the Navy, reported the closing of the Navy Department Library for building restoration. A union list of serials has been printed. The list involves 25 Navy Libraries, 9000 titles, and 30,000 entries.

FOURTH GENERAL SESSION — Summary Reports

Ms. Nathalie McMahon, representing the Department of the Air Force, reported that the Air Force's Project Warrior led to Air Force libraries becoming focal points for information dessemination about the Project's purpost in reminding Air Force personnel about mission, leadership, readiness, and physical fitness. Such activity has helped overall funding of library programs.

Major Bake, representing the Canadian Armed Forces, reported that Canadian military librarianship is alive and well and with similar problems.

Mr. Imhof, representing the Military Librarians Division of the Special Libraries Assocation (MLD/SLA), held a business and membership meeting. Mr. Imhof observed the need for increased membership in MLD/SLA. The Bulletin needs input. Underway is a project to compile a directory of military libraries and librarians.

Mr. Weiss, host, concluded the 26th Military Librarians' Workshop by passing the ceremonial hand bell to Ms. Betty Fox, who will host the 27th Workshop next October under the auspices of the Defense Nuclear Agency.

Dr. Paul H. Mosher, Associate Director for Collection Development, Green Library, Stanford University, Palo Alto, California

This workshop was essentially an opportunity to discuss concepts and problems in the context of Dr. Mosher's address at the Second General Session, "Think Nationally, Act Locally: Toward Stewardship of Library Resources," which see.

Mr. Paul B. Huenemann, Sales Director, Spacesaver Corporation,
1450 Janesville Avenue, Ft. Atkinson, Wisconsin

Mr. Huenemann summarized the history of compact storage with its intro-
duction in Germany to its major impact on America in the 1970s, when the
rise in energy and building costs made compact storage economical. A slide
presentation followed with emphasis on the cost of space and what to consi-
der when constructing a compact storage system. Important factors include
what is to be stored, existing space, safety, security, lighting, traffic
flow, aisles, range length, and maintenance. Currently, some existing
structures have used as much as 50 percent of their defined space for
aisles, stairs, and hallways. With commercial construction costs approaching
$100 per square foot, thought is being given to utilitzation of compact
storage systems rather than building new structures.

Dr. Ann Russell, Director, Northeast Document Conservation Center, Abbot Hall, School Street, Andover, Massachusetts

AN OUNCE OF PREVENTION: PRESERVATION OF LIBRARY COLLECTIONS

The librarian who is charged with care of rare or irreplaceable materials must be concerned about providing proper security, adequate climate controls, proper storage, and occasionally must arrange for conservation treatment by a qualified conservator. The primary function of the Northeast Document Conservation Center, in Andover, Massachusetts, is to serve as a conservation treatment facility. Books which are worn, torn and brittle when they arrive, leave the Center as durable, useable, and even handsome volumes. Disfiguring stains can in some cases be removed from graphic works or drawing, sometimes revealing information and details which before were obscured. Photographs mounted on brittle cardboard are removed from their mounts and stabilized.

The Northeast Document Conservation Center (NEDCC) is a non-profit, regional facility, established in 1973 with start-up funds from the New England Library Board and the Council on Library Resources. Its purpose is to provide the highest quality conservation services to libraries and historical organizations which do not have in-house facilities. The Center specializes in conservation of library and archival collections and also art on paper. The Center is essentially self-supporting through fees for its services. Today the Center employs a full-time staff of 26 and has an annual budget in excess of $600,000 per year. In its ten year history, it has served more than 900 different non-profit institutions. Through its educational programs and consulting services, it has served several thousand more.

NEDCC has a large laboratory for paper conservation, under the direction of Senior Conservator, Mary Todd Glaser. It has an outstanding staff of professional conservators, and specialized conservation equipment which most libraries are not able to provide for themselves. A good example is the Israeli-made leafcaster, which automatically fills losses in documents or bookspages. Only five of these machines were manufactured, two of which are in the United States.

The Center has a hand bookbindery, under the direction of Sherelyn Ogden, Book Conservator. Only permanent, durable materials are used and techniques which are not damaging to the book block. Original materials are saved whenever possible. The Center is known for its ability to give a volume the "full treatment." This means that a book is disbound; every folio

is washed, deacidified and mended as needed. The book is then rebound using as much of the original binding as possible.

The Center also offers a preservation microfilming service, under the direction of Andrew Raymond. Microfilm represents a cost-effective alternative when restoration of the original is not practical or possible. Further, a microfilm copy offers access to research materials, thus restricting handling of the originals. The Center specializes in filming of hard-to-film materials, which are not uniform in size and contrast, or which, because of their fragile condition, require careful handling. Services for consultation and preparation of collections prior to filming are available.

In addition, the Center offers a service for conversion of nitrate photographic negative to safety film. Silver nitrate film is an unstable material, which gradually fades and deteriorates. Loss of images can be prevented by copying them onto safety film while the originals are still in relatively good condition.

Materials treated at the Center include a logbook from the U.S.S. Constitution, the State Charter of New Jersey, etchings documenting the building of the Panama Canal, architectural drawings from the design competition for the Lincoln Memorial, and watercolors by Winslow Homer. The records of the Salem Witchcraft Trials, in the custody of the Essex Institute, were recently microfilmed.

An especially ambitious project involved the Secret Battle Order Map which General John Pershing kept in his field headquarters during World War I. On this map, General Pershing kept track of the positions of the allied and German troops with several thousand pins and flags. The pins and flags were moved daily as updated intelligence reports were received. The conservator's challenge was to remove all of the pins and flags so that the map could be treated, and then replace the pins and flags in their original positions. The project involved infinite patience.

NEDCC staff members photographed the map extensively, and set up a grid system to record the location for each tag. The map was then removed in sections from its upsom board mount (an early version of linoleum). It was cleaned, washed, deacidified, mended, and lined. The flags were very badly faded, and research had to be done to determine the original color coding. Summaries of the original intelligence reports, located in the West Point Library, were used to confirm the classification for each division prior to impainting. Many of the pins had broken heads, and it was necessary to replace them with modern pins that were modified to match the oddly shaped originals. Finally, all of the thousands of pins and flags were carefully put back into place. The map has now been returned to the West Point Museum, and the Museum is presently making plans to mount and exhibit the map.

Professional conservators can accomplish remarkable transformations of deteriorated artifacts, but unfortunately the procedures are highly labor intensive, which means that the cost is prohibitively high for all but the

very most valuable objects in any collection. For this reason, the Center has always emphasized preventive conservation as well as restoration. In 1980, NEDCC received a three year grant from the National Endowment for the Humanities to support the establishment of a Field Service Office. The Center added to its staff a full-time Field Service Director, Mildred O'Connell, whose primary responsibility is to perform on-site surveys of conservation needs of libraries and other repositories. She makes a thorough review of the building, from the attic to the basement, and provides recommendations for improvements in environmental conditions, storage practices, and housing of collections. She also comments on the general condition of collections and, in some cases, priorities for conservation or microfilming. She coordinates the Center's seminar and workshop programs, and participates in a full credit, semester-long courses on conservation management at the Graduate School of Library and Information Science at Simmons College. She also provides free assistance to disaster victims.

The scope of the paper deterioration problem is so vast that it seems to elude solution by conventional conservation procedures. With the decline in the quality of paper from the mid-nineteenth century onward, together with the increase in atmospheric pollutants, the rate of deterioration of paper has accelerated geometrically. Raw data from a recent survey at Yale University Libraries indicates that 86% of books are acidic, i.e. have a pH of 5.3 or lower. A landmark study by the Barrow Research Laboratory, in Richmond, Virginia, in the 1950's, indicated that more than half the books printed in this country before the middle of the twentieth century will not last to the end of the century without at least some conservation attention. In other words, the books which we are acquiring today for our library collections will be tomorrow's preservation headache.

Anyone who has done research with historical collections is all too aware of the brittle book problem. Machine methods of paper manufacturing have made paper more plentiful and inexpensive than in the days when paper was manufactured by hand. In some ways this is a very good thing. But the trade-off is that modern paper is less permanent. We are now living in the era of bad paper. It is primarily the use of alum rosin sizing, which gives paper a hard writing surface, that leads to the formation of acid in paper. Acid weakens paper as the long cellulose fibers are broken through a process known as acid hydrolysis.

At present the only practical way to retard the acid embrittlement of collections is through control of temperature. Acid attack on paper is a chemical process, and, as such, the rate of deterioration is controlled by the ambient temperature. According to Ahrenius' principle, for every ten degrees centigrade increase in temperature, a chemical reaction takes place twice as quickly. Equally, it is possible to retard this chemical reaction by storing materials at cool temperatures. The cooler the temperature, the longer the material can be expected to last.

It is also important to maintain constant humidity in a rare book or research repository. Seasonal and daily cycling of humidity causes books

27

and their bindings to expand and contract; over time this greatly weakens the materials. Vellum documents which are stored in conditions where humidity is allowed to fluctuate can exhibit extreme cockling and distortion. Even after a vellum document has been treated and flattened, it cannot be expected to remain flat unless it is returned to a controlled environment. For framed objects, rapid drops in humidity can lead to condensation of moisture under the glass, and staining of the object may result. Materials subjected to extremely high humidity may develop mold growth, which can cause permanent damage. In general, conservators recommend that libraries should maintain a constant temperature of around $68^{\circ} - 70^{\circ}F$, and constant humidity of approximately 50% RH + 5%. Temperature and humidity should be monitored continuously in order to adjust climate control equipment to achieve stable conditions.

Exposure to light represents another cause of deterioration of paper. Ultra-violet radiation causes paper to turn yellow and bindings to fade through a process known as photooxidation. Sunlight contains approximately ten times as much ultra-violet radiation as incandescent light. Flourescent light contains approximately four times as much ultraviolet energy as incandescent light. Damage can occur to paper artifacts left on display for extended periods of time. Libraries can take steps to reduce exposure of materials to ultra-violet radiation through use of ultra-violet screening materials on windows and fluorescent tubes and by storing valuable materials in the dark. Books which are on display should have their pages turned regularly. Prints and works of art should be kept on exhibition only for a limited period of time and then returned to storage in a dark place.

Biological attack represents another cause of deterioration of library materials. Among the common problems are mold and mildew, as well as damage by insects and pests such as silverfish, cockroaches and worms. In general, the risk of biological damage can be greatly minimized by good housekeeping. This includes restriction of food in reading rooms and stack areas, regular cleaning of library spaces, and removal of dust from collections. If an insect infestation is detected, an exterminator should be brought in right away. If the infestation is in the books themselves, such as mold growth or book lice, the materials should be fumigated.

Perhaps the most widespread and destructive form of deterioration is damage caused by people. This may result from vandalism, carelessness or ignorance of the proper way to handle and store books. A great deal of the conservation treatment which NEDCC performs involves undoing damage which was done by people, often for the purpose of preserving or mounting objects. One of the most common and irreversible forms of damage is use of pressure sensitive tape for mending or hinging of paper.

Prints and photographs mounted on acidic boards may require professional care to remove them from their mounts. Items framed with wooden slats or backings should be removed from these frames, because of the destructive effects of lignin in the wood. They may be either reframed using acid-free materials, or stored flat in folders.

28

No library, no matter how well endowed, can afford professional conservation attention for all of its materials. A very large share of the preservation work which needs to be done in a library is work that can be done in-house by the library's own staff. This largely involves preventive preservation measures. A librarian should protect his collection through minimizing risks of fire and water damage, as well as providing adequate security. Acidic storage materials should be replaced with acidfree storage materials. Photographs should be stored in sleeves of Mylar polyester film or glassine or in non-acidic paper envelopes. Books with broken bindings can be protected with phase boxes or other protective wrappers. Documents should be stored flat in acid-free folders and kept in acid-free boxes.

Oversized materials, typically found tightly rolled, should be unrolled and stored flat in map cases. Valuable documents which must be handled frequently by researchers can be protected by encapsulating them in Mylar polyester film.

Certain valuable artifacts within a library collection may require the attention of a professional conservator. A librarian may make use of a survey by a conservator to indentify materials in unstable condition and help establish priorities for treatment. Ultimately, however, the librarian must determine which materials are important enough to warrant expensive treatment.

In one sense, time is not on the librarian's side. As a collection gets older, its condition only deteriorates. On the other hand, the resources available to a librarian for coping with the deterioration problem are substantially better than they were 20 years ago. Today the librarian has access to far more technical information and improvements have been made in conservation procedures. Further, regional conservation facilities, of which the Northeast Document Conservation Center is a prototype, now provide a source for treatment and make available the expertise of conservation professionals. NEDCC recognizes that the restoration work it performs is only part of the solution. The greater part must be done by librarians who must manage their collections in such a way as to insure their availability for future generations.

Mr. Robert DeCandido, Head, Physical Treatment Branch, Conservation Department, New York Public Library, New York, New York

Drawing a distinction between those who are primarily interested intrinsically with a book, that is with its informational value, and those who are concerned extrinsically with the book as artifact, Mr. DeCandido proceeded to illustrate the problems involved with book conservation with two artifacts selected from the shelves of the New York Public Library. One is by Arnold Korfes, The Faces of the Western Front, Potsdam, 1942, issued in seven parts; the other by F. W. While, The German-American Plot, London, 1915.

The Korfes book is in seven parts consisting of several pages and text. Only one part has no pages of text. Text pages are on coated, glossy paper and have half-tone reproductions in black and white. The rest of the pages usually have eight plates per part and are mounted on large heavy black paper. The plates themselves are color reproductions of watercolors, and are mounted on black paper. Covering each plate is a glassine overlay, each of which has color print. All leaves of this particular part are hinged and were bound in 1933. Hinges are hand oversewn. General condition is fairly good, except for drooping at the front. Covers are of very brittle paper. Text leaves are in fairly good condition. Black paper is getting brittle. No text has been lost at this point, but the book is on the verge of failure.

The While book was apparently issued as a paperback. It was bound in our library in 1915. Paper approaches newsprint. Extremely brittle. There is no whiteness to the paper at all. Almost all the leaves are broken on the inside margin despite the fact that it was handsewn through the folds. Binding is still sufficient.

Treatment options are presented in the table on the following page.

PRESERVATION TREATMENT OPTIONS

	KORFES		WHILE	
	YES	NO	YES	NO
1. Do nothing (Restrict Use)		X		X
2. Deaccession		X		X
3. Replacement				
a) in print		X		X
b) reprint	?		?	
c) O.P. Market	?		?	
4. Electrostatic copying		X	Possible	
5. Micro copying		X	Possible	
6. Combination microfilming than creating a hard copy from the microfilm	Possible		Possible	
7. Digital Copying – Computerized storage	Not yet available			

OPTIONS TREATMENT OF BOOKS	KORFES		WHILE	
1. Repair (Minor)		X		X
2. Containers (Storage)	X		X+	
3. Library Binding		X		X
4. Polyester Encapulation	Possible		Possible	
5. Restoration	Only for very valuable material (Who decides "valuable"? What criteria?)			

Mr. D. Lee Power, Chief Program Analyst, Federal Library Committee, Library of Congress, Washington, District of Columbia

The question was asked, "What is distributive networking?' Audience responses varied, but in essence, distributive networking is simply work taking place at different places at the same time in an automated system. An example of such is a wordprocessor machine connected to another word processor or to a mini computer. Other examples are computers connected together, switching from one computer to another, or data entry to a computer from different terminals. Popular systems in libraries which exhibit distributive networking are those of CLSI, Geac, and Integrated Library Systems.

Mr. Michel Ridgeway, Systems Librarian, U. S. Military Academy, West Point, New York

Public access to the Geac system is self-guiding, enabling patrons to find bibliographic records of the library's holdings, three quarters of which is online. Holdings are in MARC format, allowing for many access points. Geac reads directly from OCLC tapes and the database was begun with 105,000 MARC records. There are 8 public access terminals in the catalog area and using a terminal for searching is much faster than using the card catalog. Also, more information can be found, for example, whether a hold has been placed, and when it is due, the system generates overdue notices which are sent out, thus saving time for other services to the public. Downtime is less than 2 percent. A limitation is the lack of authority fields. Subject headings are entered in LC format, which a patron might not know. This problem is being addressed, but for the time being, subjects are checked against Library of Congress Subject Headings, which is kept near the terminals.

The Geac system must be used in conjunction with the card catalog because only 75 percent of our holdings are in the database. Microforms, special collection and document materials, as well as Dewey-classed books are not yet in the database. For records not in the database, a brief record is entered at the time of circulation. The circulation staff searches the database and enters a short record with a call number, author, and truncated title. A barcode label is placed on the book and the book is then checked out. A duplicate barcode is put on the book card and the card is sent to Technical Services Division. The shelf list card is pulled and OCLC is searched by title. The OCLC record control number is noted and the record is updated. The Geac record is updated by keying in the CSN field the OCLC number. This must be done within one week in order for the records to overlay. The tape is received from OCLC on Thursday via UPS. It is loaded Friday night and takes from 9 o'clock Saturday night till 11 o'clock Sunday morning to rebuild indexes, allowing approximately one hour for each index. Once this is done, the system is backed up daily. This is important for data restoration. When the MARC tape arrives, full records overlay short records. It takes about twenty minutes to load a tape with 500 records. Catalog cards will continue to be added until the on-line catalog module is fully developed. The first such module is being installed at New York University. Boolean searching and authority filed will be available in the near future. Geac allows four terminals to one port. This is important because ports are very expensive. At present we have 16 ports with 2 consoles so that two programs can be run at one time along with a printer, a dial-up modem and an OCLC interface. All public access terminals are located on the first floor of the Library as reference help is available at this location. There is one terminal located in the AV department and two in Technical Services Division. Patron acceptance of the system has been excellent.

Ms. Doris Parker, Department of Navy, Civilian Personnel Center, Washington, District of Columbia

Mr. Elber Stearns, Deputy Director, Product Assurance Directorate, U.S. Army Armament Research and Development Center, Dover, New Jersey

Ms. Parker reported on the General Performance Appraisal System (GPAS), emphasizing performance planning, in-progress review, the written appraisal, and the relationships between appraisal and personnel actions.

At the beginning of an appraisal period, major job elements are defined, and determination is made as to which element or elements are critical ones, without which a job either could not be done properly, or would not exist in the first place. Supporting tasks are delineated, and performance standards are set.

During the appraisal period, standards are applied continuously. Periodic discussions with the employee of the latter's performance reinforces appraisal. Performance is documented, and, when necessary, standards are revised.

At the end of the appraisal period, the supervisor writes a performance report to include training review and recommendations, which is then discussed with reviewer and employee.

Ms. Parker discussed also types of appraisal (e.g., probationary, annual, interior, etc.) and rating (i.e., exceptional, highly successful, fully successful, marginal, unsatisfactory,) and decisions based on GPAS (e.g., training, within-grade increases, promotions, demotions, retentions, reduction-in-force, etc.) were reviewed as well.

Ms. Parker expressed hope that in the future, GPAS and the Merit Pay System (MPS) will comprise one system of performance evaluation. Clearer rating level definitions, and reduced documentation and paperwork are other goals. Proposals include elimination of GPAS probationary periods, lowering requirements for interior appraisals, simpler procedures for marginal ratings, and making an individual development plan optional.

Mr. Stearns reviewed the concept of merit pay in the context of the Merit Pay System (MPS) as applied to 172 employees of the United States Army Armament Research and Development Command (ARRADCOM.) The 172 employees (grades 13, 14, and 15) comprise a merit pay unit also denoted as ARRADCOM Unit 2. Allocation of monies to the merit pay fund is determined by grades and steps of all merit pay employees comprising ARRADCOM UNIT 2. Theoretically, all monies distributed to merit pay employees in this unit should equal the sum originally allocted to the merit pay fund. Fund allocations is based on 1) that portion of the comparability increase to be included in any merit pay fund as specified by the Office of Personnel Management (OPM), 2) Quality Step Increase (QSI) equivalents for a one-year period, and 3) Within-grade Increase (WGI) equivalents (100% of employees at steps 1, 2, and 3; 50% at steps 4, 5, and 6; 33.3% at steps 7, 8, and 9.)

Using the Merit Pay Fund Compensation Table (see AR 690-500, Appendix C), the annual step salary for each of 172 employees in the Unit is multiplied by the percentages that pertain to each step. For example a GS13 step 2 ($33,116) is multiplied by 7.37% for an individual fund allocation of $2,440.649. Five GS 13 step 2 employees are included in the Unit and, therefore, the total allocation for this sub-group is $12,203.245. This procedure was followed for all 172 employees and the total fund for the Unit is $367,015.46.

Having established the merit pay fund, the next step is the assignment of merit pay points. Since ARRADCOM Unit 2 is a multiple grade unit, use of the Multiple Grade Unit Tables used to compute Merit Pay Points (AR 690 500, Appendix C) is in order. Assigned supervisory adjectival ratings (i.e. Exceptional, Highly Successful, Fully Successful, Minimally Successful, and Unsatisfactory) are given quantitative points. For example a GS-15 with an Exceptional in the upper third of the step-pay range equals 200 merit pay points. This procedure was applied to the 172 employees for a total of 20,089 points in the Unit. The dollar value of a merit pay point equals the total of the fund divided by the total number of merit pay points. For ARRADCOM Unit 2, a merit pay point equals $18.27.

Two important points are in order. One, the Merit Pay Fund Computation Table was initially based on a 7% comparability increase, and the OPM determination that 50% comparability will be payed to merit pay employees. Instead, in October 1981, a 4.8% comparability increase was allowed, and the Comptroller General provided that 100% of the comparability increase was to be paid to merit pay employees.

In October 1982, OPM returned to 50% comparability. Two, merit pay employees with a Fully Successful performance ratings "are to receive merit pay in an amount which, added to their guaranteed portion of comparability pay, will equal the total percentage of the annual comparability pay raise."

Analysis of the merit pay concept reveals that the 8 October 1981 decision by the Comptroller General meant that a substantial amount of the merit pay fund would not be paid out because of the Congressional pay cap. The

Comptroller General decided 1) that the Merit Pay System would cost no more than the previous pay system and, 2) that "capped" funds are not to be included, because of the potential for such funds to be paid to "non-capped" employees.

The result of the October 1981 decision was that the 6.8% package (of which 4.4% was for merit pay with a per point value of $16.18) was reduced to a 5.7% package (with 0.9% for merit pay with a $3.31 per point value), in order that merit pay employees with Fully Successful were not totally without merit pay. Those employees rated Exceptional got relatively little merit pay. Prior to the Comptroller General's decision, the difference between an Exceptional and Minimally Satisfactory rating for those in the lower one third of the salary range was 10.2%; after the decision it was 2.3%.

Conversion from the GS to GM pay system resulted in inequity for many employees. For example, a GS-15 Step 2 employee due to receive a step increase of $1556 on 25 October 1981, was converted to GM on 11 October and lost the step increase. During the first year of merit pay, this employee was actually "penalized" in the amount of $1,496. Other examples abound. One particularly paradoxical result of conversion to merit pay was that it penalized the recently-promoted employees in the bottom third of the step scale more than those in the middle and top thirds (64% to 28% and 19% respectively.)

Further analysis reveals that approximately $65,000 more was paid to GM employees than would have been the case had they remained GS. If QSIs are considered, the amount paid would have approximated $34,000, a reduction of nearly one half.

In order to rectify inequities in the Merit Pay System, these alternatives have been proposed. The first is the buy-out — the fraction of the step earned by each employee as of 11 October 1981, the conversion date. The second is to pay the fraction of the step denied during FY 82. The third is to bring the penalized GM employee up to the equivalent GS level.

The first alternative would treat all employees equally, but would cost about $10.2 million. The third would not treat all employees fairly, but would be the easiest to administer and would cost $2.4 million. The second, and recommended, alternative would treat all employees fairly, and unlike the other two would correct the actual FY 82 conversion in equity. The third alternative would cost $4.9 million.

Due to the dissatisfaction of many Merit Pay employees, a large portion of which are concentrated in the Washington, DC area, Congressman Wolf of Virginia and Congressman Hoyer of Maryland have both recently sponsored bills to return GM employees to the GS system with the inclusion of a bonus system for those employees whose performance is of such caliber that additional monetary benefits would be appropriate.

Lieutenant Colonel Robert A. Kaiser, Director of Automated and Audiovisual Systems, United States Military Academy, West Point, New York.

___

After a brief review of the concept of management information systems, discussion shifted to the process by which a library may obtain a turnkey system. Ten factors were discussed.

1. Management should dedicate one person to act as Project Manager, who in turn will coordinate with all other responsible parties (budget officer, contract officer, computer specialists, etc.)

2. Management should let the project manager run the show. It will be management's job, however, to sell the final proposal and to gain approval.

3. Budget early allowing proper time for the entire programming, planning, and budget systems.

4. Fight for approval up front without piecemealing. Work with an ad-hoc committee, if possible, without undercutting your project manager.

5. Coordinate with, and get approval from, all involved at the local level--computer, energy, engineer, fire, security, personnel officials--regarding the desired system.

6. Contact known vendors of turn-key systems and uses of such systems for detailed system information on cost, performance, design features, conversion, site requirement, staffing, main finance, upgrading, etc.

7. Develop a request for proposal (RFP) with detailed functional specifications and requirements, allowing for options.

8. Along with RFP, develop an evaluation procedure that determines whether or not specifications and requirements are met by vendors.

9. During negotiations with prospective vendors, get as many concessions as possible, because once a contract is awarded, concessions will cost extra.

10. Following installation of the system, be prepared for database loading and linking to bibliographic items; prepare for system back-up and documentation.

Mr. Norman Varieur, Chief, Scientific and Technical Information Division, Army Armament Research and Development Command, Dover, New Jersey

Two areas of concern for management are recruitment and control of security-classified documents. The major points discussed were:

I. Recruitment
  A. Negative concepts within the system
      1. Government employees are the biggest detractors of the federal service because of their job attitudes.
      2. Giving student aids and co-ops menial library tasks that discourage career incentives in federal libraries.
      3. Lengthy federal hiring procedures and problems with OPM.

  B. Solutions suggested
      1. Utilizing the Intern Program to acquaint individuals with major library functions.
      2. Better public relations with support systems, including CPO, to encourage cooperation and understanding between agencies.
      3. Formulation of a sub-register for the Intern Program, separate the general OPM registers.
      4. Public recruitment at library schools and a joint-forces recruitment booth at SLA and ALA conferences.
      5. Inviting personnellists to library installations to observe daily library operations.

II. Security Classified Documents
  A. Internal control problems
      1. Grading of bibliographic information and abstracts as SECRET.
      2. Individual unclassified titles when compiled become classified information.
      3. Handling of classified documents by individuals.

  B. Solutions suggested
      1. Working with responsible security officers and following their instructions.
      2. Periodic inventory of classified documents.
      3. Online multi-level systems for handling classified information.
      4. A rapid delivery system of classified documents between authorized agencies.

Mr. D. Lee Power, Chief Program Analyst, Federal Library Committee, Library of Congress, Washington, District of Columbia

---

Mr. Power discussed various aspects of micro-computers and mini-computers in libraries. The central question, of course, revolves around what one expects from either type of machine. The chief distinction between a micro and a mini (at this time) is that the latter is able to control more peripheral devices such as tape and disk drives more efficiently.

The purchasing issue revolves around waht one wants to do with these machines. Hardware costs generally decline as technology advances in the computer industry, but software costs are increasing. Prospective buyers should realize that there is no one package deal, that many variables and specifications apply to their specific situations, and that a good first step is to talk with dealers to determine which pieces of equipment will go together for whatever devised situation. On the other hand, waiting for the ultimate combination, while remaining undecided, reflects the condition of "analysis paralysis." A sound question at this juncture is, "What will it cost me not to make a decision on this matter?"

Dr. Ed Cass, Executive Director, Portsmouth Atheneum Portsmouth, New Hampshire (previously Dr. Cass held the position of Archivist, United States Military Academy, West Point, New York)

An expressed need by some of the archivists involved in military school and academy archives led to this workshop. The reason for holding the workshop at this time is that several of the activities involved are either exploring or actually establishing formal archival programs involving the historical records of their institutions.

The program began with an historical sketch of the relationship between the National Archives and Records Service (NARS) and the United States Military Academy (USMA), followed by round-table discussion of various topics and a tour of the USMA Archives.

The USMA Archives was established in 1954, but NARS did not approve the preliminary inventory and accession of USMA archival records until 1976, thus accepting them as part of NARS administration. In effect, the USMA Archives is subject to guidelines mutually agreed upon by both the Department of Army and NARS.

Topics discussed included the management of Records Group 404, accessions, SF 135s, relationships in the Records Management, local inventories, and the NARS A-1 online system.

Also examined were relations with other activities such as academic departments and research programs. Questions were raised about the advantages and disadvantages of sharing facilities with a library or with a museum. Also discussed were the advantages and disadvantages of official archives, the future of relations between military academies and NARS, and what is involved in beginning an archival program.

Mr. Alan Meyer, On-Line Computer Systems, Inc., Germantown, Maryland

Ms. Dorothy Siegfried, Librarian, Technical Library, Wright-Patterson Air Force Base, Ohio

Mr. Michel Ridgeway, Systems Librarian, United States Military Academy, West Point, New York

---

Mr. Meyer discussed the Integrated Library System (ILS). Emphasis was placed on the system's integrated logical functions, its single index, and the master bibliographic file as apposed to a set of sub-systems.

Ms. Siegfried discussed CLSI's LIBS-100 system, particularly the system's interface in the OCLC.

Mr. Ridgeway discussed implementation of the Geac 6000 system at the Military Academy's Library and exhibited the following schedule, which is an outline of the overall library automation project to date at the library.

April	1981	Decision made to fund a lease-purchase of a library computer circulation/catalog system.
May	1981	Preparation of specifications.
June	1981	Preparation of Request for Proposal; distribution to vendors.
July	1981	Response to vendor queries.
Aug.	1981	Evaluation of proposals and recommendation of award.
Sept.	1981	Contract awarded; final negotiations.
Oct.	1981	Installation of CPU; supplies ordered; demo data base installed. Policy parameter document prepared.
Nov.	1981	Operator training. Data entry training.
Dec.	1981	MARC conversion program parameters. SUNY/OCLC tapes delivered. 6 temporary data entry employees hired.
Jan.	1982	3d & 4th quarter SUNY/OCLC tapes loaded. Weekly OCLC tape service begun. Barcoding project begun.
Feb.	1982	Barcoding. Notification forms prepared.

Mar.   1982   Barcoding. Circulation staff integrated into barcoding project.

April   1982   Barcoding. Remainder of equipment delivered. Computer cable strung throughout library.

May   1982   Barcoding. Preparation for registration.

June   1982   Barcoding project completed. Circulation training. Registration of faculty and staff.

July   1982   Public terminals installed. On-line circulation begins. Cadet patron tape loaded.

Aug.   1982   Registration of cadets and distribution of library cards.

Sept.   1982   Geac data base accessible through local USMA network, in test phase.

Mr. Donald L. Gilman, Federal Account Representative, Institute for Scientific Information, 3501 Market Street, Philadelphia, PA 19104   (215) 386-0100

The Institute for Scientific Information's (ISI) micro-computer based system, PRIMATE, stands for Personal Retrieval of Information by Microcomputer and Terminal Ensemble. Because of a recent reorganization of ISI, however, PRIMATE has not yet been released to the public. Thus, it was thought useful to discuss a scenario for development of a military journal database. ISI representatives have composed ISI's journal lists with those of various government and university libraries in the Washington, DC metropolitan area, for example, the Pentagon Library, Department of State Library, and Georgetown University's Institute on Policy Research. Feedback from the community of military librarians have been good about the ISI proposal for development of such a database.

Information Handling Services, 15 Inverness Way East, Englewood, Colorado

---

The vendor presented its Visual Search Microfilm Files (VSMF), an information retrieval system focusing on engineering information with a database that includes vendor catalogs, military and federal specifications and standards, manuals, regulations, drawings, and other federal documents, and industrial standards of the U. S., Canada, Germany, Japan, Great Britain, as will as ISO and IEC data.

Showcase Corporation, 1200 Quince Orchard Boulevard, Gaithersburg, Maryland

---

The vendor presented information about its products, including Specwriter Services which focuses on military and federal specifications and standards; the Integrated Federal Personnel Manual System; GSA Federal Supply Schedules and Contractor Price Lists; Federal Procurement and Property Management Regulations; Defense Acquisitions Regulations among them.

Mr. Alan Meyer, On Line Computer Systems, Inc., Germantown, Maryland

Mr. Meyer discussed two types of video discs:

(a) Industrial players which are computer-controlled with micro processors

(b) Commercial players used mostly for entertainment and education.

Video disc data may be input to a computer and the discs themselves are highly durable. As yet, there are no copyright problems as one cannot make a copy except from a master. Some discs have direct access capabilities. They are also relatively impervious. It costs about $3,000 to produce a master. A minimum order would be for 50 copies at about $5.00 a copy. It is expected that more and more retrieval systems will utilize video disc technology.

Visual images can be directly transmitted, either by photographing images, which are then transmitted to a video display monitor, or by tracing images, maps, graphs, etc. with a magnetic pen. A computer then manipulates the images allowing many different variations to appear on screen. Color can be adjusted or changed and shapes can be made larger or smaller, etc. Animation is more difficult as special skills are needed, but the process is available.
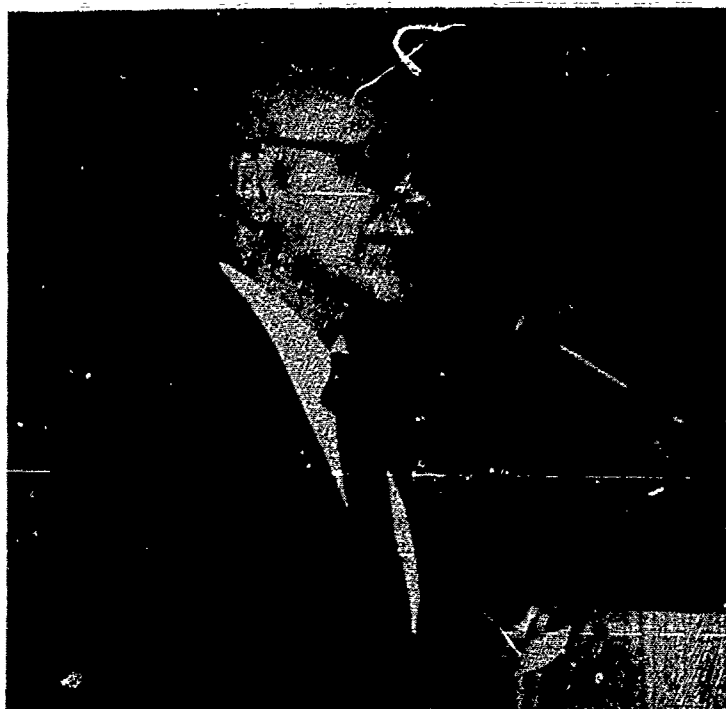
LEFT: Mr. Norman L. Varieur
    Chief, Scientific and
Technical Information Division, US Army Armament, Research, and Development Command
_____
Workshop Program Chairman

RIGHT: Mr. Egon A. Weiss,
    Librarian, United
States Military Academy
_____
Workshop Host

Brigadier General Frederick A. Smith, Jr., Dean of the Academic Board, United States Military Academy

BELOW: Lieutenant Colonel William R. Calhoun, Jr., Assistant Dean for Plans and Programs, United States Military Academy with Commander Elizabeth A. Fuseler, Chief Librarian, United States Merchant Marine Academy

Mr. Hubert E. Sauter,
Administrator, Defense
Technical Information
Center

Dr. Paul M. Mosher,
Associate Director for
Collection Development,
Stanford University (left),
and Mr. Normand L. Varieur
(right)

ABOVE: Directors of three Academy libraries: Professor Richard A. Evans, Naval Academy (left); Mr. Egon A. Weiss, Military Academy (middle); and Major Reiner H. Schaeffer, Air Force Academy (right).

BELOW: Registration in the lobby of the Hotel Thayer, West Point, New York
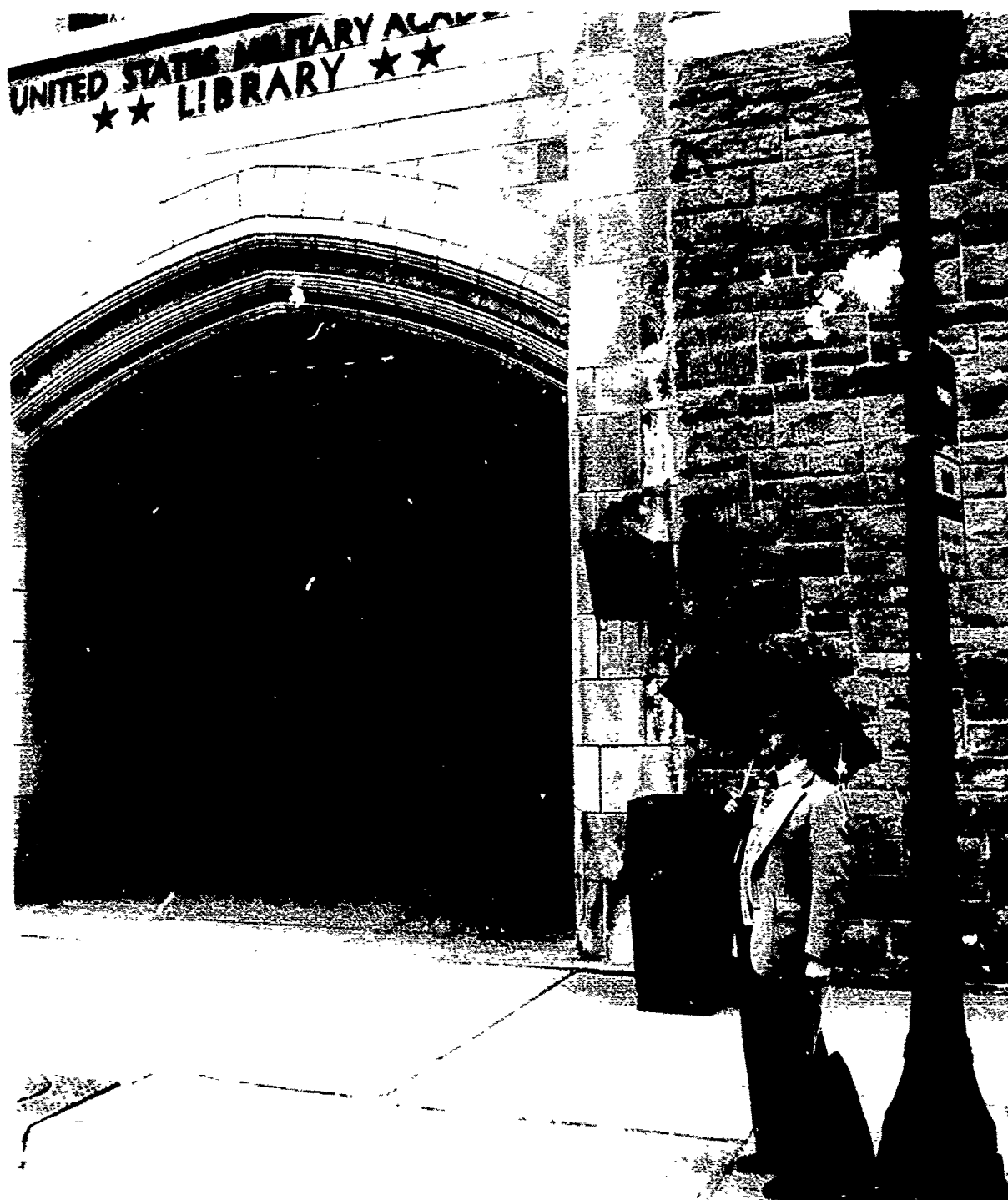
ABOVE: Conferees visiting the Cadet Chapel, West Point, New York

BELOW: Conferees touring West Point (notwithstanding the rain!)

Main Portal, The Library, United States Military Academy, West Point, New
York. A librarian reflects on these Proceedings, the weather, the bus,...
Cacoethes scribendi.

APPENDIX I — PROGRAM SPONSOR, HOST, AND COMMITTEES

SPONSOR   United States Military Academy
                           West Point, New York
                    Lieutenant General Willard W. Scott, Jr.
                           Superintendent

HOST   Egon A. Weiss, Librarian
                           United States Military Academy

PROGRAM CHAIRMAN   Normand L. Varieur
                        Chief, Scientific and Technical
                           Information Division
                           United States Army
                         Armament Research and
                         Development Command
                           Dover, New Jersey

DIVISION CHAIRMAN   Peter H. Imhof, Librarian
                        Ruth H. Hooker Technical Library
                         Naval Research Laboratory
                           Washington, DC

EXECUTIVE COMMITTEE

    Chairman   Paul Klinefelter
                           Director, User Services
                    Defense Technical Information Center
                           Cameron Station
                           Alexandria, Virginia

    Members   Norman Dakan
                     Air Force Librarian, AFMPC/MPCSOA
                           Randolph AFB, Texas

                              Jims Murphy
                     United States Army Materials and
                         Mechanics Research Center
                         Watertown, Massachusetts

Betty Fox
Chief, Technical Library Division
Defense Nuclear Agency
Washington, DC

Pearl Robinson, Librarian
Naval Ship Systems Engineering Station
Philadelphia, Pennsylvania

Ex Officio   Peter H. Imhof, Librarian
Ruth H. Hooker Technical Library
Naval Research Laboratory
Washington, DC

HOST COMMITTEE   Egon A. Weiss, Librarian

Donald M. Koslow, Associate Librarian

Joseph Barth, Assistant Librarian
for Collection Development

Ann K. Harlow, Assistant Librarian for
User Services

Charles A. Ralston, Assistant Librarian for
Technical Services

Kenneth W. Rapp, Acting Archivist

Robert E. Schnare, Assistant Librarian for
Special Collections

WORKSHOP COMMITTEE   Elizabeth L. Lesnieski, Coordinator
Elaine B. Eatroff
Kevin R. Jones
Sylvia C. McGarry

CONFERENCE SITE   Hotel Thayer
West Point, New York 10996

APPENDIX II -- PROGRAM OF THE 26th MILITARY LIBRARIANS' WORKSHOP

Tuesday, 12 October

1700-2100	Registration	Lobby
1900-2030	Dinner	Lawn Terrace Room

Wednesday, 13 October

0730-0830	Breakfast	Lawn Terrace Room
0830-0900	Registration (continued)	Lobby
0900-1000	FIRST GENERAL SESSION	Crest Room

PRESIDING, Mr. Egon A. Weiss,
Librarian, United States
Military Academy

WELCOMING REMARKS, Brigadier
General Frederick A. Smith,
Jr., Dean of the Academic
Board, United States
Military Academy

ACADEMIC BRIEFING, Lt. Col.
William R. Calhoun, Jr., Asst.
Dean, Plans and Programs,
United States Military Academy

1000-1020	Coffee	Hudson Gallery Foyer
1030-1230	Review of Post and Academic Facilities	Buses depart in front of hotel
1230-1330	Buffet Lunch	Lawn Terrace Room

1400-1530   SECOND GENERAL SESSION: Crest Room
RESOURCE SHARING

        Mr. Hubert E. Sauter, Admin-
        instrator, Defense Technical
        Information Center, Cameron
        Station, Alexandria, Virginia

        Dr. Paul H. Mosher, Associate
        Director for Collection
        Development, Green Library,
        Stanford University, Palo
        Alto, California

1530-1600   Coffee   Hudson Gallery Foyer

1600-1730   WORKSHOP SEMINARS

    a. Conservation & Preserva-   Crest Room Terrace, N.
        tion I

        Ms. Ann Russell, Director
        Northeast Document Conser-
        vation Center, N. Andover,
        Massachusetts

    b. Information Management   Crest Room Terrace, S.
        Systems & Statistics

        Lieutenant Colonel Robert A. Kaiser,
        Director, Directorate of Automation and
        Audiovisual Systems,
        United States Military Academy

    c. VSMF/Showcase   Hudson Gallery

    d. Collection Development   Garden Terrace Rooms

        Dr. Paul Mosher

1730-1930   LIBRARY OPEN HOUSE   Shuttle bus departs in
                                  front of hotel

1930-2100   Dinner   Lawn Terrace Room

<u>Thursday, 14 October</u>

0730–0830	Breakfast	Lawn Terrace Room

0900–1030	THIRD GENERAL SESSION: OPM CLASSIFICATION STANDARDS FOR LIBRARIANS	Crest Room

[Panel Discussion]

1030–1100	Coffee	Hudson Gallery Foyer

1100–1230	WORKSHOP SEMINARS

a. Video Disc Technology   Hudson Gallery

Mr. Alan Meyer, On-line
Computer Systems, Inc.,
Germantown, Maryland

b. Micro and Mini Computers   Garden Terrace Rooms
in Libraries

Mr. D. Lee Power, Chief
Program Analyst, Federal
Library Committee,
Library of Congress
Washington, DC

c. Military Archives   Crest Room Terrace, S.

Dr. Edward Cass, Executive
Directory, Portsmouth
Athenaeum, Portsmouth,
New Hampshire
(Former Archivist, United
States Military Academy)

1245–1400	Buffet Lunch	Lawn Terrace Room

1430–1600	WORKSHOP SEMINARS

a. Scenario for Development   Crest Room Terrace, N.
of a Military Journal Database

Mr. Donald Gilman, Federal
Account Representative,
Institute for Scientific
Information, Philadelphia
Pennsylvania

b. Compact Storage   Garden Terrace Rooms

c. Operational On-line Systems   Crest Room Terrace, S.

Mr. Alan Meyer

Mr. Michel Ridgeway,
Systems Librarirn, United
States Military Academy
Library

Ms. Dorothy Siegfried,
Librarian, Wright-Patterson
Technical Library, Wright-
Patterson Air Force Base,
Ohio

d. GPAS-MPS   Hudson Gallery

Ms. Doris Parker, Staff of the
Director of Civilian Personnel,
Department of the Army
Washington, DC

Mr. Elber Stearns,
Deputy Director, Product
Assurance Directorate
U.S. Army Armament Research
and Development Command
Dover, New Jersey

1600-1620	Coffee	Hudson Gallery Foyer
1630	Proceed to Reviewing Stand	Buses depart from hotel parking lot
1700-1830	THAYER AWARD REVIEW	The Plain
	Full Dress Parade by the U.S. Corps of Cadets in Honor of Mr. David Packard	
1900-2000	Cocktails	Lawn Terrace Room
2000	BANQUET (Informal)	Lawn Terrace Room

Friday, 15 October

0730-0830	Breakfast	Lawn Terrace Room

0900-1030   WORKSHOP SEMINARS

a. Distributive Networking   Hudson Galley

Mr. D. Lee Power

b. Geac On-line Catalog   Crest Room Terrace, S.

Mr. Michel Ridgeway

c. Conservation & Preserva   Crest Room Terrace, N.
tion II

Mr. Robert De Candido
Head, Physical Treatment Branch
Conservation Department
New York Public Library
New York, New York

d. Management Problems   Garden Terrace Rooms

Mr. Norman L. Varieur

1030-1100   Coffee   Hudson Gallery Foyer

1100-1300   FOURTH GENERAL SESSION: Hudson Gallery

FEDERAL UPDATES - FLC/DTIC

REVIEWS BY SERVICES -- Army, Navy, Air Force

REPORT FROM CANADA

SLA/MLD Business and Member   ship Meeting

Mr. Peter H. Imhof, Chairman,
Military Librarians Division
Special Libraries Association

1230-1400   Buffet Lunch - Adjournment   Lawn Terrace Room

APPENDIX III -- LIST OF MILITARY LIBRARIANS' WORKSHOP SPONSORS

1st - 1957
Air University
Maxwell Air Force Base, Alabama

2nd - 1958
Army Artillery and Missile Center
Fort Sill, Oklahoma

3rd - 1959
Naval Postgraduate School
Monterey, California

4th - 1960
Armed Services Technical Information Agency
Washington, D.C.

5th - 1961
Air Force Academy
Colorado Springs, Colorado

6th - 1962
White Sands Missile Range
New Mexico

7th - 1963
Naval Ordnance Laboratory
Silver Spring, Maryland

8th - 1964
Air Force Weapons Laboratory
Albuquerque, New Mexico

9th - 1965
Military Academy
West Point, New York

10th - 1966
Navy Electronics Laboratory
San Diego, California

11th - 1967
Air Force Institute of Technology
Wright-Patterson Air Force Base, Ohio

12th - 1968
Army War College
Carlisle Barracks, Pennsylvania

13th – 1969
Naval War College
Newport, Rhode Island

14th – 1970
Industrial College of the Armed Forces
Washington, D. C.

15th – 1971
Headquarters, United States Air Force
San Antonio, Texas

16th – 1972
Redstone Scientific Information Center
Redstone Arsenal, Alabama

17th – 1973
Naval Research Laboratory
Washington, D.C.

18th – 1974
Army Communications Command
Fort Huachuca, Arizona

19th – 1975
Air Force Academy
Colorado Springs, Colorado

20th – 1976
Naval Academy
Annapolis, Maryland

21st – 1977
Army War College
Army Military History Institute
Carlisle Barracks, Pennsylvania

22nd – 1978
Air Force Weapons Laboratory
Albuquerque, New Mexico

23rd – 1979
Defense Documentation Center
Alexandria, Virginia

24th – 1980
Naval Postgraduate School
Monterey, California

25th – 1981
Air University
Maxwell Air Force Base, Alabama

APPENDIX IV — LIST OF SPEAKERS

Dr. Edward Cass, Executive Director, Portsmouth Athenaeum, 9 Market Square, Box 848, Portsmouth, NH 03801

Mr. Robert De Candido, Head, Physical Treatment Branch, Conservation Department, New York Public Library, New York, NY 10018

Mr. Donald Gilman, Federal Account Representative, Institute for Scientific Information, Philadelphia, PA 19104

Mr. Alan Meyer, On-line Computer Systems, Inc., 20010 Century Boulevard, Suite 101, Germantown, MD 20767

Dr. Paul Mosher, Associate for Collection Development, Green Library, Stanford University, Stanford, CA 94305

Ms. Doris Parker, Staff of Director of Civilian Personnel, ATTN: DAPECP/ HQDA, Washington, DC 20310

Mr. D. Lee Power, Chief Program Analyst, Federal Library Committee, Library of Congress, Washington, DC 20540

Mr. Michel Ridgeway, Systems Librarian, United States Military Academy Library, West Point, NY 10996

Ms. Ann Russell, Director, Northeast Document Conservation Center, North Andover, MA 01810

Mr. Hubert Sauter, Administrator, Defense Technical Information Center, Cameron Station, Alexandria, VA 22314

Ms. Dorothy Siegfried, Librarian, Wright-Patterson Technical Library, AFWAL/ TST, Wright-Patterson AFB, OH 45433

Mr. Elber Stearns, Deputy Director, Product Assurance Directorate, United States Army Armament Research and Development Command, Dover, NJ 07801

APPENDIX V -- LIST OF ATTENDEES

Akers, Rose E., Coordinator, US Army DPCA/MSA Library Activities, P.O. Box 933, APO Miami, FL 34004

Alexander, Carolyn I., Chief Librarian, Technical Information Center., Bldg 2925, US Army Combat Developments Experimentation Center,Fort Ord, CA 93941 AV 929-3618/4706 (408) 242-3618

Auer, Mary A., Librarian, US Army DPCA/MSA Library (Bldg 622), West Point, NY 10996 AV 688-2974 (914) 938--2974

Aylward, James., Administrative Librarian, Center Library (Bldg 114), Naval Education and Training Center, Newport, RI 02840 AV 948-3044/4352 (401) 841-3044/4352

Bake, A.S.J., Maj (Ret), Head Humanities & Social Sciences Division, Royal Military College of Canada, Massey Library, Kingston, Ontario, Canada K7L 2W3 (613) 545-7330

Banicki, Cynthia A., Supervisory Librarian, US Army Center Library (Bldg 21), Fort Bliss, TX 79916 AV 978-6736 (915) 568-6736

Barbalas, Louis X., Librarian, Technical Library, ATTN: DRESTA-TSL, US Army Tank -- Automotive Command, Warren, MI 48090 (313) 574-6543

Barrett, Donald J., Assistant Director for Public Services, The Library, US Air Force Academy, Colorado Springs, CO 80840 AV 259-2590 (303) 472-2590

Barrows, Richard S., Librarian, ATTN: Library (Code 73) Office of Judge Advocate General, Department of the Navy, 200 Stovall Street, Alexandria, VA 22332 AV 221-9565 (202) 325-9565

Beary, Eugene G., Chief, Technical Library, US Army Natick Research & Development Laboratories, Natick, MA 01760 AV 256-4248 (617) 651-4248

Bergmann, Randall W., Chief of Reference, US Air Force Geophysics Laboratory, Hanscom AFB, MA 01731 AV 478-4742 (617) 861-4742

Blake, Martha, Librarian, US Army Construction Engineering Research Laboratory, P.O. Box 4005, Champaign, IL 61820 FTS 958-7217 (217) 373-7217

Blunk, Douglas S., Librarian, US Army Engineer District, Louisville, ATTN: Library, P.O. Box 59, Louisville, KY 40201 (502) 582-6427

Bomgardner, Barbara-Ann, Librarian, Base Library, McGuire AFB, NJ 08641 AV 440-2079 (609) 724-2079

Brewster, Mary Jane, Administrative Librarian, White Oak Library, Naval Surface Weapons Center, Silver Spring, Mr 20910 AV 290-1922 (202) 394-1922

Brooks, Janet, Chief, Terminology Branch, Personnel Division J-1, OSD/OJCS, Rm 1D958, The Pentagon, Washington, DC 20301 AV 2243081/1352 (202) 694-3081/1352

Burns, Dean A., Chief, Information Services Branch, US Army Intelligence & Threat Analysis Center, Rm 2204, Bldg A, Arlington Hall Station, VA 22212 AV 222-1929 (202) 692-1929

Burtnett, Isabelle K., Head Librarian, Technical Library, Naval Pacific Missile Test Center, Naval Air Station, Point Mugu, CA 93042 AV 351-8156/8192 (805) 982-8156/8192

Busey, Madge J., Director, Library System, US Army Engir   r Center & School, Fort Belvoir, VA 22003 AV 354-6255 (703) 664-6255

Byars, Gaye, Chief Bibliographer, The Library, Air Universit/, Maxwell AFB, AL 36112 AV 875-2274 (205) 293-2274

Byrn, James H., Director, Library System, US Army Training & Doctrine Command, ATTN: ATPL-AOL, Fort Monroe, VA 23651 AV 680-4291 (804) 727-4291

Casey, Blanchella K.L., Librarian, Base Library, Seymour Johnson AFB, NC 27531 AV 488-5707 (919) 736-5707

Casey, Phil, Chief Scientific & Technical Information Section, US Army Benet Weapons Lab, Watervliet, NY 12189 AV 973-5613/5854 (518) 266-5613

Cheung, Linda J., Librarian, US Army Foreign Science & Technology Center, ATTN: DRXST-IS3, 220 Seventh Street NE, Charlottesville, VA 22901 AV 274-7545 (804) 296-5171 x545

Childress, Elmer T., Chief, Support Division, Hydrographic/Topographic Center, Defense Mapping Agency, 6500 Brookes Lane, N.W., Washington, DC 20315 AV 287-2080 (202) 227-2080

Coble, Gerald M., Library Director, Naval Education & Training Command, Naval Air Station, Pensacola, FL 32508 AV 922-1380 (904) 452-1380

Collins, Donna, Head, Information Services, Defence Research Establishment Atlantic, P.O. Box 1012 (Canada), Dartmouth, NS B2Y 3Z7 (902) 426-3100

Coraggio, Mary-Deirdre, Head, Technical Services Branch, The Librry Naval Weapons Center, China Lake, CA 93555 AV 437-2539 (619) 939-2539

Corbin, Brend G., Librarian, Naval Observatory, 34th & Massachusetts Ave. NW, Washingt :u, DC 20390 AV 294-4525 (202) 254-4525

Cresswell, Merry V., Librarian, The Library (Bldg 560), Defense Equal Opportunity Management Institute, Patrick AFB, FL 32925 AV 854-4917 (305) 494-4917

Curran, Margaret, Librarian, The Library (Code 016), Naval Weapons Support
Center, Crane, IN 47522   AV 482-1615 (812) 854-1615

Darcy, William E., Librarian, Base Library, Charleston AFB, SC 29404   AV 583-
3164 (803) 554-3164

Davidoff, Marcia, Chief Librarian, Technical Information Center (Bldg 2068),
Naval Training Equipment Center, Orlando, FL 32813   AV 791-5637 (305) 646-
5637

Davis, Alta, Course Support Librarian, The Library, National Defense Univer-
sity, Fort McNair, DC 20319   AV 223-8466/67 (202) 693-8466/67

Davis, Bonnie D., Head Librarian, The Library, Code (604), Naval Explosive
Ordnance Disposal Technology Center, Indian Head, MD 20695   AV 364-4738/39
(301) 743-4738/4739

Davis, Wylma, Reference Librarian, The Library, Virginia Military Institute,
Lexington, VA 24450 (703) 463-2694

Day, Susan E., Assistant Librarian, Royal Roads Military College, FMO Vic-
toria, BC VOS 1BO   AV 467-1483 (604) 388-1483

DeCoux, Elizabeth, Librarian, Base Library, Keesler AFB, MS 39534   AV 868-
2181 (601) 377-2604

Dobi, Ellen K., Chief Librarian, US Army Communications—Electronics Command
ATTN: DRSEL-ME-PSL, Fort Monmouth, NJ 07703   AV 992-1298 (201) 532-1298

Durkin, Mary Lucile, Chief, Training Library, US Army Aviation Center, Bldg
5906, Fort Rucker, AL 36362   AV 557-5014/4591 (205) 255-5014/ 5018

Earnest, Kathryn L., Field Services Librarian, US Army Library Activities
Division, Alexandria, VA 2?331   AV 221-9702 (202) 325-9702

Eckel, Virginia E., Director, The Library, Air Force Institute of Technology,
Wright-Patterson AFB, OH 45433   AV 785-5894 (513) 255-5894

Evans, Richard A., Director, Nimitz Library, US Naval Academy, Annapolis, MD
21402   AV 281-2194 (301) 267-2194

Everidge, Barbara T., Systems Librarian, Combined Arms Center Research Li-
brary, US Army Command & General Staff College, Fort Leavensworth, KS 66027
AV 552-4035 (913) 684-4035

Everly, Elaine C., Assistant Chief, Navy & Old Army Branch, National Archives
Washington, DC 20408 (202) 523-3229

Eyolfson, Donley D., Chief, Library Branch, 3420 TCHTG/TTMNL, Lowry AFB, CO 80230 AV 926-2396 (303) 370-2396

Fisk, Dorothy A., Director, Army Library Management Office, HQDA (DAAG-LM), 1456 Hoffman Bldg., Alexandria, VA 22331 AV 221-9128 (202) 325-9128

Fox, Betty L., Chief, Technical Library Division, Defense Nuclear Agency, Washington, DC 20305 AV 221-7730 (202) 325-7780

Fuseler, Elizabeth, Chief Librarian, Schyler Otis Bland Memorial Library, US Merchant Marine Academy, Kings Point, NY 11024 FTS 663-8501 (516) 482-8200

Galbraith, Betty, Librarian, Base Library, Eielson AFB, AK 99702 AV (317) 372-3174 (907) 372-3174

Galifaro, Sophia, Supervisory Librarian, The Library (Code 202.13--STOP T-4), Mare Island Naval Shipyard, Vallejo, CA 94592 AV 253-4306 (707) 646-2532

Gallant, Thomas A., Library Director, HQ, US Army Recreational Services Operation Korea, ATTN: EARS-LB, APO San Francisco, CA 96301

Gier, Edwin F., Librarian, Chemical Systems Laboratory, US Army Test & Evaluation Command, Aberdeen Proving Ground, MD 21010, AV 584-2934 (301) 671-2934

Gipe, Patricia, Library Director, Defense Systems Management College, Fort Belvoir, VA 22060 AV 354-2732 (703) 664-2732

Goff, Dewey A., Jr., Librarian, Reference Library, Engineering Support Section/MMEDO, Bldg 171, San Antonio Air Logistics Center, Kelly AFB, TX 78241 AV 945-6314 (512) 925-6314

Gohlke, Dorothy A., Librarian, Base Library, Bldg 95, Chanute AFB, IL 61868 AV 862-3191 (217) 496-3191

Goldman, Paul E., Librarian, Air National Guard, PMEC/LC, PO Box 10, Alcoa, TN 37701 AV 588-8293 (615) 970-3077 ext 293

Griffin, Gerald T., Librarian, Base Library, Hanscom AFB, MA 01731 AV 478-2177 (617) 861-2177

Griner, Marina, Supervisory Librarian, Soldier Support Center DPCA/MSA Library System, Bldg 400, Rm 255, Fort Benjamin Harrison, IN 46216 AV 699-3891 (317) 542-3891

Guerriero, Donald A., Librarian, Defense Communications Agency, Code 308C, Washington, DC 20305 (202) 692-0373

Guertin, Dennis, Acting Head, Document Delivery Services Section, Scientific Information Services, Department of National Defence, National Defence Headquarters, Ottawa, Canada K1A OK2 (613) 992-7237/7929

Haglund, Doris, Librarian, Base Library, Tinker AFB, OK 73145 AV 735-2626 (405) 734-2626

Harned, Marilynn, Librarian, Technical Information Center, Military Sealift Command, Washington, DC 20390 AV 292-2248 (202) 282-2248

Hawthorne, Judy, Administrative Librarian, US Army Training & Doctrine Command, Systems Analysis Activity, White Sands Missile Range. NM 88002 AV 258-1467 (505) 678-1467

Hays, Timothy, Chief, Technical Library, US Army Corps of Engineers, New England Division, 424 Tropelo Road, Waltham, MA 02254 FTS 339-7349/8118 (617) 647-8118

Hendry, Barbara L., Chief, Technical Services Division, Albert F. Simpson Historical Research Center, Maxwell AFB, AL 36112 AV 875-5820 (205) 293-5820

Henseler, Barbara, Social Science Analyst, Mobilization Concepts Development Center, National Defense University, Fort McNair, DC 20319 AV 223-8199 (202) 693-8199

Higel, Sandra T., Chief, Technical Information Center, HQ Air Force Systems Command/MPSLT, Andrews AFB, Md 20334 AV 858-3551/2019 (301) 981-3551

Hillyer, Georgianna, Librarian, Technical Library, Air Force Weapons Laboratory/SUL, Kirtland AFB, NM 87117, AV 244-7449 (505) 844-7449

Hoelter, Lawrence H., Supervisory Librarian, ATTN: Library (Code 245), Naval Shipbuilding, Conversion & Repair, San Francisco, CA 94135 AV 799-3057 (415) 641-3057

Holzbauer, Herbert, Chief, The Library, Defense Intelligence Agency, Washington, DC 20301 AV 222-5311 (703) 663-3994

Ihde, Linda, Chief, Library System, US Army 7th Infantry Division & Fort Ord, Fort Ord, CA 93941 AV 929-3565 (408) 242-3565

Imhof, Peter H., Librarian, Ruth H. Hooker Technical Library, (Code 2620), Naval Research Laboratory, Washington, DC 20375 AV 297-2357 (202) 767-2357

Ingersoll, Joan F., Head, Technical Library Division, Naval Ocean Systems Center, San Diego, CA 92152 AV 933-6623 (724) 225-6623

Jeffries, William W., Archivist, US Naval Academy, Annapolis, MD 21402 AV
281-2178 (301) 267-2178

Kalkus, Stanley, Coordinator of Navy Libraries, Navy Department Library
(Bldg 44), Washington Navy Yard, Washington, DC 20374 AV 288-2386 (202)
433-4131

Kamra, S.K., Mr., Chief Librarian, Canadian Land Forces Command & Staff Col-
lege & National Defence College, Fort Frontenac, Kingston, Ont K7K 2X8 AV
270-5829 (613) 545-5829

Klinefelter, Paul, Director of User Services, Defense Technical Information
Center, Cameron Station, Alexandria, VA 22314 AV 284-6434 (202) 274-6434

Klingelhoeffer, Mary, Librarian, Base Library, Griffiss AFB, NY 13441 AV
587-7030 (315) 330-7030

Kolb, Edward J., Principal, Technical Information Officer, US Army Materiel
and Development Readiness Command, Code DRCLD, 5001 Eisenhower Ave., Alexan-
dria, VA 22333 (202) 2748828

Lamirande, Armand, Chief Librarian, College Militaire Royal, Saint-Jean,
Quebec, Canada J0J 1R0 (514) 346-2131 x2835

Lane, Robert B., Director, The Library, Air University, Maxwell AFB, AL
36112 AV 875-2606 (205) 243-2606

Laxson, Charlotte H., Librarian, Acquisitions Branch, US Army Redstone
Scientific Information Center, (Bldg 4484), Redstone Arsenal, AL 35898 AV
746-5505 (205) 876-5505

LeTendre, Louise A., Branch Chief, Concepts Analysis Agency, 8120 Woodmont
Avenue, Bethesda, MD 20814 AV 295-1530 (202) 295-1530

Lyle, Royster, Jr., Curator of Collections, George C. Marshall Research
Foundation, Drawer 1600, Lexington, VA 24450 (703) 463-7103

McConnel, James P., Deputy Librarian, Ruth H. Hooker Technical Library (Code
2620), Naval Research Laboratory, Washington, DC 20375 AV 297-2267 (202)
767-2269

McKenzie, Mary, Head of Public Services, The Library, US Coast Guard Academy,
New London, CT 06320 (203) 444-8515

McLaughlin, Barbra L., Technical Information Specialist, US Army Harry
Diamond Laboratories, 2800 Powder Mill Road, Adelphi, MD 20783 AV 290-2536
(202) 394-2536

McLean, Loche A., Cataloger, The Pentagon Library, Rm 1A518, The Pentagon,
Washington, DC 20310 AV 227-4658 (202) 697-4658

McMahon, Nathalie G., Deputy Director, Air Force Libraries, HQ Air Force Manpower & Personnel Center/MPCSOL, Randolph AFB, TX 78150 AV 487-3037/3471 (512) 652-3037

Maples, Carol, Librarian, 6520 Test Group/ENML (STOP 238) Edwards AFB, CA 93523 AV 350-3606 (805) 277-3606

Martin, Abbott W., Assistant for Scientific & Technical Information, US Army Corps of Engineers, Washington, DC 20314 AV 285-0665 (202) 272-0665

Martin, Margaret J., Administrative Librarian, Armed Forces Staff College, Norfolk, VA 23511 AV 690-5155 (804) 444-5155

Mathys, Nel, Chief, Technical Library, Rome Air Development Center, Griffiss AFB, NY 13441 AV 587-7607 (315) 330-6707

Matlock, Faye B., Administrative Librarian, US Air Force 475 ABW, Yokota AB, Japan, Box 8142, APO San Francisco 96328 AV 225-7490

Miller, Clara S., Librarian, HQ, US Marine Corps, Washington, DC 20380 AV 224-1997/3185 (202) 694-1997/3185

Miller, Lester, Supervisory Librarian, Morris Swett Library, US Army Field Artillery School, Fort Sill, OK 73503 AV 639-4525 (405)351-4525

Minter, Lyle W., Reference Librarian, The Pentagon Library, Rm 1A518, The Pentagon, Washington, DC 20310 AV 227-4301 (202) 697-4301

Morrison, J. Michael, Supervisory Librarian, US Army Recreational Services Operation Korea, APO San Francisco, CA 96301 AV 253-3037/3892

Morse, Richard E., Chief, Reference Division, Albert F. Simpson Historical Research Center, Maxwell AFB, AL 36112 AV 875-5344 (205) 293-5344

Morton, Jessie H., Chief, Documents Systems Branch, The Library, Air University, Maxwell AFB, AL 36112 AV 875-2190 (205) 293-2190

Mosley, Doris O. Robinson, Deputy Director, The Library, Army War College, Carlisle Barracks, PA 17013 AV 242-4704 (717) 245-4704

Murphy, Cathy, Chief Librarian, Keith Hodson Memorial Library, Canadian Forces College, 215 Yonge Blvd., Toronto, Canada M5M 3H9 (416) 484-5742

Murphy, Margaret M., Supervisory Librarian, ATTN: DRXMR-PL (Technical Library), US Army Materials & Mechanics Research Center, Watertown, MA 02172 AV 955-5460 (617) 923-5460

Murray, Anne, Librarian, HQ, Army & Air Force Exchange Service, PO Box 222305, Dallas, TX 75222 AV 967-2110 (214) 330-2110

Neyland, Cynthia, Librarian, Technical Library (Code 09M54), Naval Facilities Engineering Command, 200 Stovall Street, Alexandria, VA 22332 AV 221-8507 (202) 325-8507

Nicolosi, Anthony S., Director, Museum and Historical Collection, Naval War College, Newport, RI 02840 AV 948-4052 (401) 841-4052

Novinger, Margaret H., Administrative Librarian, Conrad Technical Library (Bldg 29807, ATTN: ATZH-ETL), US Army Signal Center, Fort Gordon, GA 30905 AV 780-3922 (404) 791-3922

Nyce, Louise, Library Program Director, US Army Forces Command, ATTN: AFPR-PSM (Bldg 130), Fort McPherson, GA 30330 AV 588-3056/2077 (404) 7523056

Ogden, Dale T., Librarian, 6923 SS/SSL, Air Force Electronic Security Command, San Antonio, TX 78243 AV 945-26' / (512) 925-2617

Omdahl, Ingjerd O., Staff Librarian, HQ, US Army Materiel Development and Readiness Command, ATTN: DRXAM-L, 5001 Eisenhower Avenue, Alexandria, VA 22333 AV 284-8087 (202) 274-8087

Oostenink, Dick J., Jr., Librarian, The Library, US Army Chaplain Center & School, Fort Monmouth, NJ 07703 AV 992-3082 (201) 532-3082

Pastorett, Tomma N., Bibliographer, The Library, Air University, Maxwell AFB, AL 36112 AV 875-2888 (202) 293-2888

Pensyl, Ornella L., Chief, The Library, US Army Intelligence School, ATTN: ATSI-EDT-L, Fort Devens, MA 01433 AV 256-03413/3766 (617) 7965-3413/3766

Pepin, Patricia M., Librarian, Wood Technical Library, US Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, MD 21010 AV 584-4135 (301) 671-4135

Pletzke, Chester J., Director, Learning Resource Center, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814 (301) 295-3356

Porter, Lee W., Supervisory Librarian, DPCA/MSA Library, ATTN: AFZK-PA-ML, Bldg 44, Fort McPherson, GA 30330 AV 588-2409/3762 (404) 752-2409/3762

Poulis, Andrew D., Librarian, Air Force Engineering & Services Center/TST, Tyndall AFB, FL 32403 AV 9706449

Power, D. Lee, Chief Program Analyst, Federal Library Committee, Library of Congress, Washington, DC 20540 (202) 287-6055

Price, Jane H., Assistant Archivist, The Museum, US Naval Academy, Annapolis, MD 21402   AV 281-2178 (301) 276-2178

Quinn, Frances, Command Librarian, HQ Air Force Systems Command/MPSL, Andrews AFB, MD 20334   AV 858-2598 (301) 981-2598

Rafferty, Josephine, Librarian, Technical Library, (Code 863), Portsmouth Naval Shipyard, Portsmouth, NH 03801   AV 684-2769 (207) 439-1000 x2769

Rambo, Marjorie, Command Librarian, HQ Tactical Air Command/DPSRL, Langley AFB, VA 23665   AV 432-3584 (804) 764-3584

Randall, Maryanne, Technical Services Librarian, US Army Library Service Center (Bldg 1801), Fort Polk, LA 71459   AV 863-6540 (318) 535-6540

Ray, Carolyn, Librarian, Defense Institute of Security Assistance Management, Bldg 125, Area B, Wright-Patterson AFB, OH 45433   AV 785-5567 (513) 2555567

Reeves, Patricia Ann, Chief Librarian, Post Library, Bldg 1, Bradley Loop, Fort Sheridan, IL 60037   AV 459-3188 (313) 926-3188

Requena, Marilyn A., Chief, Medical Library, Tripler Army Medical Center, HI 96859   AV 433-6391/6917 (808) 433-6391/6917

Reser, Christine M., Chief DPCA/MSA Library, Fort Leonard Wood, MO 65473   AV 581-5431 (314) 368-5431

Rhodes, Myrtle J., Supervisory Librarian, Technical Librry (Code 123), Naval Coastal Systems Center, Panama City, FL 32407   AV 436-4321 (3904) 234-4321

Robinson, Pearl O., Librarian, Technical Library (Bldg 619), Naval Ship Systems Engineering Station, Philadelphia, PA 19112   AV 444-7078 (215) 952-7078

Rosenberger, Graham, Supervisory Cartographer, Defense Mapping Agency Aerospace Center, St. Louis Air Force Station, MO 63118   AV 693-4841 (314) 263-4841

Rugen, Frances J., Director, The Library (Code LO8A), Naval Civil Engineering Laboratory, Port Hueneme, CA 93043   AV 360-4788/4252 (805) 982-4788/4252

Russell, J. Thomas, Director, The Library, National Defense University, Fort McNair, DC 20319   AV 223-8437 (202) 693-8437

Ryan, Thomas J., Chief, Library Division, National Security Agency, Fort Meade, MD 20755   AV 235-0111 (ask for NSAFANX 6766) (301) 8596766

Saunders, Laurel B., Administrative Librarian, Technical Library, US Army White Sands Missile Range, NM 88002 AV 258-1317 (505) 678-1317

Sauter, Hubert E., Administrator, Defense Technical Information Center, Bldg 5, Cameron Station, Alexandria, VA 22314 AV 284-6800 (202) 274-6800

Schaeffer, Reiner H., Major, Director, The Library, US Air Force Academy, Colorado Springs, CO 80840 AV 259-2590 (303) 472-2590

Schlag, Gretchen O'Connor, Librarian, Technical Library (Code S2436), Naval Ordnance Station, Indian Head, MD 20640 AV 364-4742/43 (301) 743-4743/42

Schwass, Earl R., Director, The Library, Naval War College, Newport, RI 02840 AV 948-2641 (401) 841-2641

Schneider, Janet L., Librarian, Technical Library, HQ Air Force Communications Command/DAPL, Scott AFB, IL 62225 AV 638-4437 (618) 256-4437

Sefton, Amelia K., Director, Post Library (Bldg 404), NYAC/Morale Support Activities, Fort Hamilton, NY 11252 AV 232-4875 (212) 630-4875

Shanholtz, Brenda W., Reference Librarian, Technical Library, (ATTN: DELSD-L), US Army Electronics Research & Development Command, Fort Monmouth, NJ 07703 AV 995-2236 (201) 544-2236

Sherlock, Al, Chief, Technical Information Center, US Army Corp of Engineers, Waterways Experiment Station, P.O. Box 631, Vicksburg, MS 39180 FTS 542-2533 (601) 634-2533

Sherwood, Samuel R., Chief DPCA/MSA Library (Bldg 6501), Fort Dix, NJ 08640 AV 944-4858 (609) 562-4858

Siegfried, Dorothy E., Chief Librarian, Aeronautical Laboratory Library, Wright-Patterson AFB, OH 45433 AV 785-3630 (513) 255-3630

Sites, Katherine P., Chief Librarian, DPCA/MSA Library (Bldg P-9023), Fort Lee, VA 23801 AV 687-2322 (804) 734-2322

Slivka, Jacqueline W., Librarian, Technical Library (Bldg 705), Naval Weapons Station, Yorktown, VA 23691 AV 953-4720/4726 (804) 887-4720/4726

Smith, Maxine C., Librarian, US Army Corps of Engineers, Southwestern Division, 1114 Commerce Street, Dallas, TX 75242 FTS 729-2325 (214) 767-2325

Spinks, Paul, Director, Dudley Knox Library, Naval Postgraduate School, Monterey, CA 93943 AV 878-2341 (408) 646-2341

Spitzen, Rosemary B., Administrative Librarian, Information Services Branch, Naval Medical Research Institute, Bethesda, MD 20814 AV 295-2186 (202) 295-2186

Stark, Mary E., Librarian, Keller Army Hospital, US Military Academy, West Point, NY 10996 AV 688-2722 (914) 938-2722

Stephen, Evelyn B., Chief Librarian, Post Library System, HQ US Army, XVIII Airborne Corps and Fort Bragg, Fort Bragg, NC 28307 AV 236-6919 (919) 396-6919

Swanson, Carol, Engineering Librarian, Engineering Library (Code 202.5), Puget Sound Naval Shipyard, Bremerton, WA 98314 AV 439-2767 (206) 476-2767

Thew, Elizabeth, Librarian, Naval Air Station, Cecil Field, FL 32215 AV 860-5311 (904) 778-5311

Thorpe, Annette, Post Librarian, DPCA/MSAD Library (Bldg 18000), Fort Hood, TX 76544 AV 737-5202/4921 (817) 6855202/4521

Tipper, Maryellen, Librarian, Classified Library, Naval Ocean Research and Development Activity (Code 125L), Bay St. Louis, MS 39529 AV 485-4684 (601) 688-4739

Todd, Fred W., Chief Librarian, Air Force School of Aerospace Medicine, Brooks AFB, TX 78235 AV 240-3725 (512) 536-3725

Turley, Paula K., Chief Librarian, Technical Library, Western Space & Missile Center, Vandenberg AFB, CA 93437 AV 276-9745 (805) 866-9745

Turner, Ann, Librarian, The Library, Norwich University, Northfield, VT 05663 (802) 485-5011

Umbrell, Norma J., Reference Librarian, US Army Military History Institute, Carlisle Barracks, PA 17013 AV 242-3611 (717) 245-3611

Varela, Iris, Chief Librarian, 3700 ABG/SSL, Lackland AFB, TX 78236 AV 473-3610 (512) 671-3610

Varieur, Normand, Chief, Scientific and Technical Information, US Army Armament Research and Development Command ATTN: DRDAR-TSS, Bldg 59, Dover, NJ 07801 AV 880-2914

Venti, Anna M., Library Technician, Naval Shipbuilding, Conversion & Repair, Barnes Bldg (5th Flr, Code 245), 495 Summer St., Boston, MA 20145 AV 955-4695 (617) 451-4695

Viehdorfer, Alreeta, Command Librarian, Air Force Accounting and Finance Center, Denver, CO 80279 AV 926-7566 (303) 370-7566

Wallace, Katharine R., Librarian, Naval Ocean Research and Development Activity/NSTL Station, Bay St. Louis, MS 39522 AV 485-4598 (601) 688-4597

Walsh, Josephine, Librarian, Technical Library (Code 3014), Naval Weapons Station, Seal Beach, CA 90740   AV 873-7574 (213) 594-7574

Walter, Gary D., Academic Librarian, Defense Language Institute, Presidio of Monterey, CA 93940,   AV 929-8206 (408) 242-8206

Weaver, Josephine, Chief Librarian, Davis Library, Fort Devens, MA 01433 AV 256-3548 (617) 7965-3548

Webber, Sylvia J., Chief, The Library, US Army Intelligence Center & School, Fort Huachuca, AZ 85613   AV 879-5930 (602) 538-5930

Weiss, Egon A., Director, The Library, US Military Academy, West Point, NY 10996   AV 688-2209 (914) 938-2209

Wood, Robert S., Reference Librarian, US Army War College, Carlisle Barracks, PA 17013   AV 242-3660 (717) 245-3660

APPENDIX VI — LIST OF USMA LIBRARY STAFF
PARTICIPANTS

Balfe, Gale M.	Moskala, Suzanne M.
Barth, Joseph M.	Olson, Kathleen
Brewster, Dawn	Ralston, Charles A.
Calvetri, Gladys T.	Randall, Lawrence E.
Dabney, Johanna D.	Rapp, Kenneth W.
Durkan, Linda J.	Reeder, Veronica M.
Eatroff, Elaine B.	Ridgeway, Michel
Goodwin, Marie J.	Robischon, Rose M.
Harlow, Ann K.	Schnare, Robert E.
Hyzer, Dawn L.	Shickle, Beverly A.
Jones, Kevin R.	Sibley, Judith A.
Koslow, Donald M.	Thompson, Linda E.
Lamica, Maria P.	Tietze, Larry D.
Lenahan, Jean A.	Vanacore, Anna M.
Lesnieski, Elizabeth L.	Watson, Georgianna
McGarry, Sylvia	Weiss, Egon A.

Whitfield, Wendy A.

Hotel Thayer, West Point, New York. Site of the 26th Military Librarians'
Workshop, October 1982.